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Raising the Money: Options, Consequences, and Objectives for Financing Health Care in Canada

by

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Contents

Highlights	iv
Executive Summary	v
The Basic Options and the Predominance of Public Financing	1
Under the Public Umbrella: Continuing Tension over the Mix	3
Financing Choices within a Broader Financial Framework	4
Pure Forms and Hybrid Financing Mechanisms	6
Public Health Insurance "Premiums" – a.k.a. Poll Taxes	6
Tax-Expenditure Subsidies for Private Insurance	7
Mandation – A Public Requirement for Private Payment	9
Integrating User Charges with the Income Tax	10
"Medical Savings Accounts" – The Latest Thing	11
Axes of Conflict of Interest in Financing Choices	12
Who Pays (what share of the total costs of health care)?	15
Who Gets (how much care, from whom, when)?	24
Who Gets Paid (how much, for doing what)?	30
The Triple Threat: Medical Savings Accounts	34
Shifting Financial Sources – What Are the Objectives?	35
Notes	43
References	48

Highlights

1. All modern health care systems are predominantly publicly financed, most from taxation, with various forms of user charges and (in some countries) private insurance making up the remainder. Public shares range between 60% and 90%, most between 75% and 85%; Canada is at the low end of this band.

2. The mix of financing sources embodies answers to three basic questions:
   Who Pays (what share of total cost)?
   Who Gets (what health care, on what terms, when)? and
   Who Gets Paid (how much, for what services)?

3. Who Pays? Tax finance distributes costs according to tax liability – roughly proportionate to income. User charges distribute them by use of care, very closely correlated with illness. Any shift from public to private financing, by whatever means, will necessarily transfer costs from those with higher to those with lower incomes, and from the healthy to the ill.

4. Who Gets? Private payment does not selectively discourage inappropriate use. But it does selectively discourage use by those with lower incomes, improving access for those with higher incomes.

5. Who Gets Paid? Governments are better able than private payers to contain costs. But all expenditure is by definition income for someone. Private payment systems open up larger income opportunities, but not necessarily more care, and not better health.

6. Public spending on Medicare is not absorbing an increasing share of either national income or public revenue; on the contrary, its share has been falling in recent years. Claims that Canada *must* increase private financing because no more public money is available are simply false, portraying a political choice as an economic inevitability.

7. Private payments could yield additional financing, but the burden would be heavily concentrated on a small proportion of the population – aged, chronically ill, and low-income. Exemption for these sharply reduces the revenue potential.

8. Transferring costs from the wealthy and healthy to the unwealthy and unhealthy, while improving access only for the wealthy and unhealthy, will not contribute to more efficient and effective health care. That objective requires reform of how providers are organized and funded.

Executive Summary

All modern health care systems are predominantly financed from public revenues, supplemented by private sources. Most draw on general taxation; a few have public "social insurance" systems. Private financing is primarily through direct user payments; some countries also have private insurance systems for the better-off. The public share ranges from 60% to over 90%, most countries fall between 75% and 85%. Canada reports a 72.6% public share (2001); the public tax expenditure subsidies to private insurance bring the true figure to about 75%.

Although the public share in Canada is relatively low, the "public-private" debate has largely focused on raising the private share. This paper accordingly describes several proposed mechanisms for such a shift, and assesses both the revenue potential of private finance and its impact on the distribution of health-care costs and access to care. It does not deal with potential increases in the public share, e.g. a national tax-financed Pharmacare program, though its conclusions have obvious implications for such proposals.

The choice of financing mechanisms is only half the "public-private" debate; the other half concerns the ownership, motivations and funding of provider organizations. An accounting framework, derived from the National Income Accounts, illustrates the distinction between *funding* choices – which organizations shall be entitled to provide and be paid for which services? – and choices of *financing* mix – how shall the revenues be raised, from whom, and by what organizations? In principle, these choices are independent; in practice, "public-private" choices in the organization of care delivery do influence the financing mix.

The debate over alternative financing sources is essentially about three basic questions:

Who Pays (what share of total cost)?
Who Gets (what health care, on what terms, when)?
Who Gets Paid (how much, for what services)?

Who Pays? Tax finance distributes health costs according to tax liability – roughly proportionate to income. User charges distribute them by use of care, very closely correlated with illness. Any shift from public to private financing will transfer costs from those with higher to those with lower incomes, and from the healthy to the ill. A variety of "hybridized" financing schemes have been proposed to mitigate (or obscure) this transfer – e.g. taxing individual benefits, or "Medical Savings Accounts". But relative to tax finance, all have the same distributive effect. They move money from the unhealthy and unwealthy to the healthy and wealthy, with the greatest benefits for the very wealthy.

Who Gets? Traditional economic arguments hold that insured health care is over-provided and that user charges would cut total use. Their criterion for "over-use", however, is not appropriateness of care, but users' ability/willingness to pay. Effective care for those who cannot afford it is "overuse". A more widely held view is that health care is "underfunded" – important needs are currently unmet – but resources are mis-directed to inappropriate care. Unfortunately, the evidence is very clear that private payment does not selectively discourage inappropriate use. Rather, it selectively discourages use by those with lower incomes, improving access (appropriate or otherwise) for those better able to pay.

Who Gets Paid? Governments are better able than private payers to contain costs. They have much lower administrative overheads than private insurers, and as sole purchasers are better able to negotiate prices and fees, and limit excess capacity. But all expenditure is by accounting definition income for someone – cost control is income control. Multi-source payment systems provide greater income opportunities, but not necessarily more care, and certainly not better health.

Some argue that Canada *must* increase private funding, whatever its distributional effects, because needs are expanding and more public money, for various reasons, simply cannot be provided. These claims are false. They portray a political choice as an economic necessity. Public spending on Medicare is not absorbing an increasing share of either national income or public revenue; on the contrary, its share has been falling in recent years. Provincial governments point, correctly, to the rising share of provincial *expenditure* taken up by health care, but not to its stable or falling share of provincial *revenues*. Management of health expenditure remains a demanding priority for all modern governments, but the public system is not outrunning Canada's fiscal capacity. The real "cost explosion" is in prescription drugs, roughly half financed from private sources.

The introduction of user charges, either deductibles or coinsurance, into the Medicare system could raise substantial sums, perhaps in the range of $5-$10 billion a year. The revenue potential is, however, limited because care use is so heavily concentrated among a small proportion of the population – disproportionately aged, chronically ill, and below average income. How far would governments be prepared to go in imposing heavy cost burdens on this high-user group, in order to avoid contributing more tax money? (Small charges raise small revenues.)

Private insurance offers little mitigation; the high-risk groups are readily identifiable. They are not insurable without large public subsidy – defeating the revenue-raising objective. At present, about one third of private insurance financing is in fact public tax expenditure subsidy. (This subsidy, not reflected in the public accounts, provides the greatest benefits to those with the highest incomes.)

Shifting from public to private financing, by whatever mechanism, will transfer costs from the wealthy and healthy to the unwealthy and unhealthy, while improving access only for the wealthy and unhealthy. But if transferring income from the lower to the higher end of the income scale is a primary public objective, this can be done with much less "collateral damage" by simply cutting income taxes and raising the so-called "health insurance premiums" – in reality poll taxes. The governments of Alberta and British Columbia have taken this route. Only if it is also judged important to improve the relative access of those better able to pay would it be necessary also to shift the financing mix toward more private sources.

These cost and access shifts will not, however, contribute to a more efficient and effective health-care system. That objective requires reform of the delivery system, of how providers are organized and funded, rather than merely redistributing of the burdens and benefits of the present system.

The Basic Options and the Predominance of Public Financing

In modern health care systems people pay for the care of other people, not for their own. A relatively small proportion of total expenditures on health care is financed through payments by the users of care, consequent upon their own use. Rather people make contributions, in varying amounts and on varying terms, to "third parties" – public or private agencies that pool these contributions and disburse funds to the providers of care.

In Canada, for example, out-of-pocket payments by users accounted for $14.2 billion, or only 15.9%, of the total of $89.5 billion spent on health care in 1999 (CIHI 2001, pp. 18, 77). (This includes both purely "out-of-pocket" transactions such as the purchase of non-prescription drugs ("over-the-counter" or OTC), and various forms of user fees imposed by public or private third parties such as deductibles and coinsurance.) The corresponding percentage for the United States, generally regarded as the leading example of "private" medical care, was actually slightly lower, at 15.0%, in 2000 (Levit *et al.*, 2002) – to all intents and purposes identical to "socialized" Canada. (The U.S. share is of course much larger in dollar terms, because the U.S. health care system is so much more expensive.) The point is general; Figure 1 shows the ratio of out-of-pocket to total health care spending for a number of OECD countries.[1] In all, collective financing mechanisms raise the lion's share of the revenue used to fund the provision of health care.

FIGURE 1: Share of Total Health Expenditures Paid Out of Pocket, Selected OECD Countries, 1998

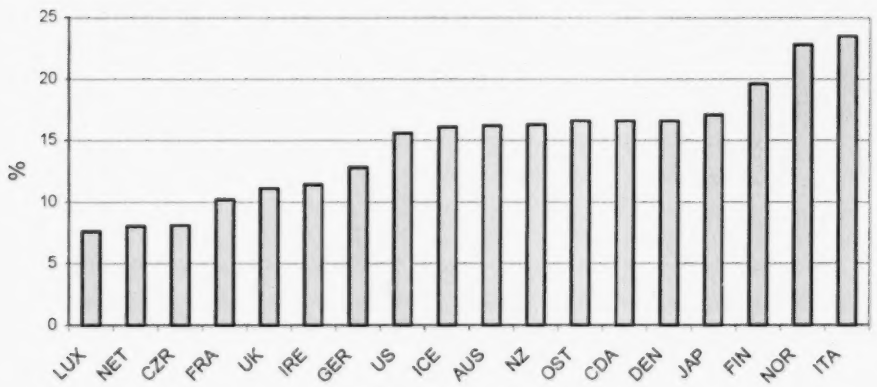
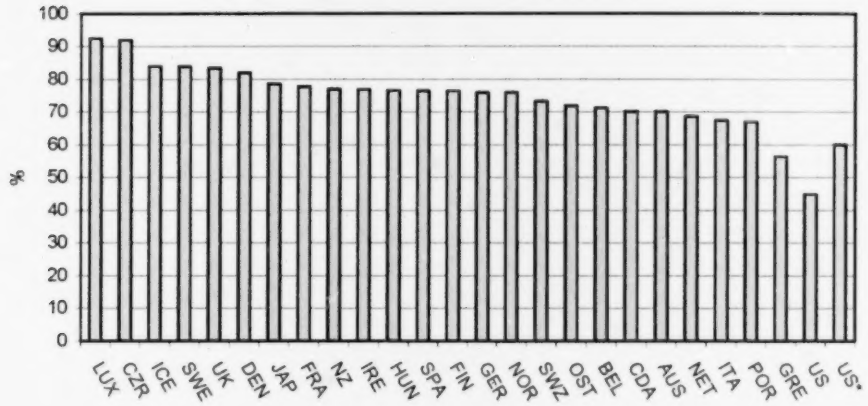


FIGURE 2: Share of Total Health Expenditure Paid by Public Sector, Selected OECD Countries, 1998



Moreover, as Figure 2 shows, in developed market economies these collective financing mechanisms are predominantly public, either governments or semi-independent "social insurance" agencies. (Canada is actually toward the lower end of this range, contrary to public rhetoric alleging greater use of private finance in the European systems.) The latter are special-purpose "para-statal" institutions for funding health care and sometimes other social benefits as well; the former simply reimburse health care providers out of general tax revenue, typically through a government ministry.

On the other hand, private insurance plays a minor role in health care financing outside the United States, with only a handful of OECD countries reporting more than 10% of health expenditure from this source. Canada, at 11% in 1999 (CIHI, 2001), is among that handful.

Under the Public Umbrella: Continuing Tension over the Mix

These four channels – general taxation, social insurance, out-of-pocket payments, and private insurance effectively span the options for financing modern health-care systems. (In principle, these last are voluntary, "private market" transactions, although in practice this is not generally so – see below.) And while the predominance of public finance (either general taxation or, in a minority of cases, social insurance) is universal in the high-income, industrialized world,[2] the proportions of these sources do vary from country to country (OECD, 2001; see also Wagstaff *et al.*, 1999).

Moreover, in most countries, and certainly in Canada, the appropriate mix of these sources seems to be in more or less permanent contention. The debate over user charges, in various proposed forms, within the publicly financed payment system for physicians and hospitals is older than Medicare itself, waxing and waning with fiscal cycles. On the other hand prescription drugs, a rapidly increasing share of total health care expenditures – 12% in 2001, up from 8.2% in 1991 and 6.4% in 1981 (CIHI, 2001) – is primarily financed from private sources (at least ostensibly, but see below). This raises the obvious question of why these essential components of modern medical practice have been left out of the universal public system.

Public debates over the mix of financing mechanisms are typically carried on through competing claims about to the general benefits that will follow from adopting one or other approach, or rather from shifting the mix in one direction or another. But any claim of universal benefit is necessarily false. Any shift in the financing mix, in any system, will be beneficial to some and will hurt others.[3] The choice of mix must involve a balance of benefits and harms, in which different people's interests are weighed differently. The very permanence of the controversy should tell us that it arises from a permanent conflict of embedded interests, not from a simple inability to find the "right" mix for everyone. In that sense, the choice of financing mechanisms is a matter of values, not a technical question.

But the technical questions matter a great deal, because participants in the debate over financing routinely make claims about the consequences of alternative mechanisms. The validity of these claims *is* a technical matter; are they supported by or inconsistent with known facts, with research findings and analysis, or even with simple logic? Such claims of consequence typically involve aspects of the health-care system that go well beyond the financing structure itself, concerning putative effects on the volume, mix, and distribution of services, their appropriateness or the efficiency of their production. In order to assess such claims, and thus to evaluate the probable effects of alternative financing mechanisms, it will be helpful not merely to describe alternative mechanisms, but to embed those mechanisms in a logically consistent accounting structure tracing out the financial flows within any health-care system.

Financing Choices within a Broader Financial Framework

In Figure 3, the four channels through which finances can be assembled are inserted into a framework adapted from the identity relationship underlying national income accounting.[4] There is a fundamental accounting identity based on the fact that, for the economy as a whole, the total of all incomes earned must be exactly equal to the total of all expenditures (on final demand) – every dollar of expenditure is simultaneously and always a dollar of someone's income. In the health-care sector, this identity is expanded to include a third term – total revenue. The revenues assembled, from whatever source, to finance health care must exactly equal the expenditures to fund providers of care, and these in turn must equal the total incomes earned by individuals from the provision of care:

Total Revenue = Total Expenditure = Total Income

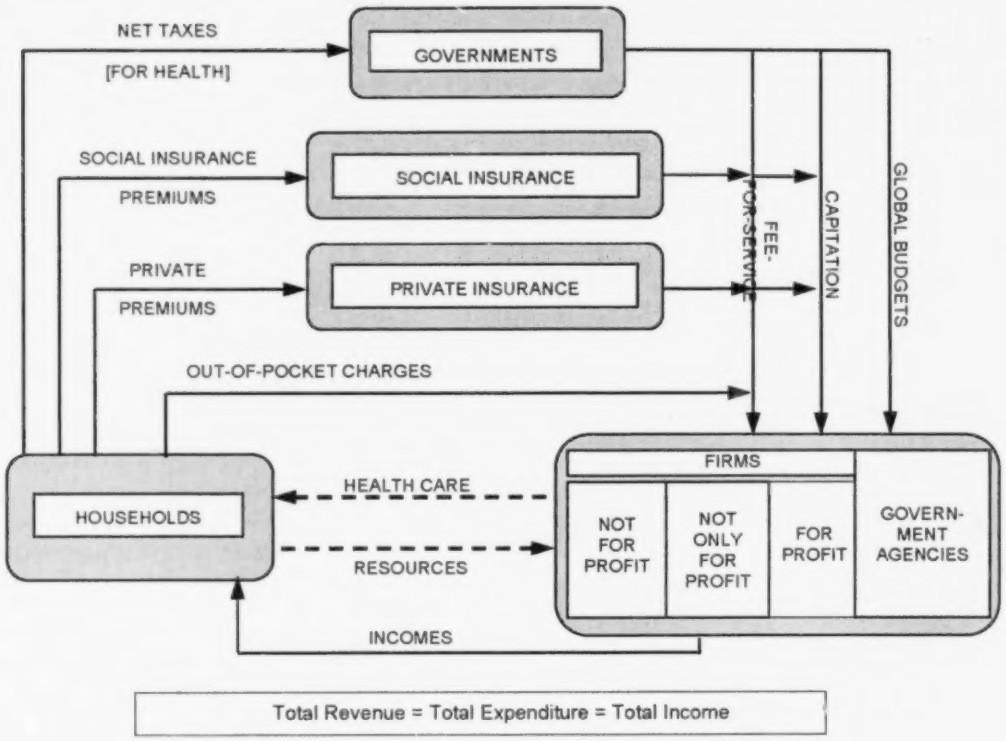
This is an "Iron Law", a logical necessity, violated only by errors of arithmetic. Any change in one term must be matched by corresponding changes in the other two. In accounting as in ecology, "it is impossible to do only one thing."

The box on the lower left of Figure 3 represents all the individual people in the system. They provide productive resources – labour and skills, raw materials, various forms of capital services, management and "entrepreneurship" – to the institutions – hospitals, medical clinics, drug companies, etc. ("firms") – that produce health care goods and services. As patients, they then "consume" that care. They are also paid for the resources they supply, in the form of wages, salaries, net income from professional practice, rent, interest and dividends... all the ways in which people derive income from economic activity.

Figure 3 also makes clear the distinction between two issues often confused in the "public-private" debates – private financing and private provision. The former refers to the way in which the revenues are raised; the latter to the ownership and motivation of the organizations that are funded from these revenues. Logically, these questions are quite separate; a publicly owned and operated provider could raise part of its revenues through user fees – and does in Sweden, for example – and a public payment agency could provide full reimbursement for the services of private, for-profit providers, as the Government of Alberta seems to propose in Bill 11 tabled in 2000.

In practice, however, the two questions are not so neatly separable. As indicated in Figure 3, the choice of financing mechanism may constrain the range of funding options. "Single-payer" governments may choose (subject to public acceptance) to reimburse on a global budget basis (as hospitals are funded in Canada), or capitation (so much per period for each patient under care, as general practitioners are (mostly) funded in Britain), or per treated case (as are hospitals in the United States under the "Medicare" program for the elderly), or per item of service (as are physicians in Canada). Individual payments, by contrast, can only be by item of service. Private insurers have historically paid by item of service; in the United States, many have now transformed themselves into "managed care" organizations paying by treated case or capitation. It is still unclear, however, whether these funding options are sustainable (and at what cost) in a multi-payer environment.

FIGURE 3: Alternative Ways of Paying For Health Care



The mode of provider organization also tends to influence the mix of financing sources. "Private" and "public" are often treated rhetorically as if they were uniform categories, but this introduces a serious and potentially dangerous confusion.[5] There is a world of difference between a private medical practice and the Hospital Corporation of America. While both have a strong interest in the net revenues generated through their activities, only the latter is responsible to anonymous shareholders for whom share value is directly linked to the rate of growth of earnings. A self-employed practitioner can decide that s/he is earning an adequate income, and focus on solely professional objectives. Capital markets do not permit this luxury for publicly traded corporations. If the rate of growth of earnings slows, share prices fall, and management typically falls with them.

The realities of capital markets thus set up a fundamental conflict between public objectives and private necessities. "Cost containment", which is essential to maintaining an efficient and effective public health care system, cannot be reconciled with the growth requirements imposed by capital markets. Those pressures lie behind the continuing efforts by for-profit firms to influence medical decision-making in the direction of ever-increasing expenditure.[6] But they also lead to efforts to open up additional revenue sources by tapping private funds through "added value" services over and above those reimbursed by public agencies – behaviour that

might less politely be described as "bait and switch". The behaviour of eye clinics in Calgary, selling "enhanced service packages" including foldable lens implants to cataract patients for extraordinary mark-ups over cost, falls into this category (Armstrong, 2000).[7]

Pure Forms and Hybrid Financing Mechanisms

Figure 3 displays the four channels as pure types, sharply distinct from each other, and in fact most revenue in most systems are raised in one or other of these ways. But there are also revenue-raising mechanisms, some merely proposed, others actually in use in some systems, that are hybrids of two or more of these pure types (Evans, 2000; 2002a). These are typically advocated as ways of mitigating the most obvious disadvantages of private financing mechanisms and thus reducing political opposition to an expansion of their scope.

Public Health Insurance "Premiums" – a.k.a. Poll Taxes

The net effects of such hybrid mechanisms are usually not immediately transparent, at least to the general public, though they can be traced out with a bit of analysis. An even simpler source of confusion, however, is the mere mis-labelling of a revenue source. The "health care premiums" levied by the Alberta and British Columbia governments for physicians' services and (by Alberta only) hospital care provide a leading example. The name suggests some form of "insurance", social if not private. But this impression is false.

- These premiums are compulsory, and are paid directly into the provincial treasuries;
- The premiums levied on an individual or household bear no relation to the payer's risk status, and the total collected bears no necessary relation to program outlays;
- Perhaps most important (and largely unknown to the public), coverage does *not* depend on having paid one's premiums. To qualify for federal transfer payments, provinces must cover 100% of their populations (net of special categories).

Accordingly, all students of health care systems follow the practice of the national income accountants and treat these "premiums" as a form of tax – in fact a poll tax. The level and even the existence of such a poll tax is a matter of general fiscal policy and tax incidence – they do not at this time exist in the other eight provinces of Canada – bearing no relationship to the health care system *per se*.

Tax-Expenditure Subsidies for Private Insurance

Hybridized revenue sources, however, are both more interesting and a good deal less transparent. The form in most common use is the tax-expenditure subsidy, hybridizing taxation with private insurance through favourable tax treatment of private insurance premiums. In Canada, for example, an employer that pays the premiums of a private health insurance plan covering employees, can deduct the cost from taxable income as a business expense. But these premiums are not then taxed in the hands of the employees. An equivalent amount paid to employees as salary would of course be taxable income.[8] (Employer-paid "premiums" for Medicare are by contrast fully taxable in the hands of the employee.)

The fiscal effect is the same as if people with private insurance paid for it from after-tax income, as they would for any other commodity sold on the private market, and then received a rebate of part of the purchase price from the federal and provincial governments. Such a rebate would of course have to be financed from other tax sources, but the rebate amounts would show up in the public accounts and the identities of recipients would be matters of public record. Tax expenditure subsidies, by relieving some persons of taxation, also require other tax sources to offset this revenue loss. But the process is not transparent, the amounts involved do not show up in the public accounts, and the beneficiaries are never identified.

Smythe (2001) estimates the cost of this subsidy to the Canadian federal and provincial governments in 1994 at $2.28 billion.[9] This subsidy amounted in that year to 3.1% of total health care expenditure of $73.1 billion (CIHI, 2001, p. 77), and roughly 30% of total health care expenditures by private insurers.[10] Sheils and Hogan (1999) find a roughly similar proportion for the United States; just over one third of private insurance payments are in fact "rebated" through the government subsidy. Their estimate of the total cost of this subsidy to U.S. governments, $124.8 billion in 1998, amounts to about 10.9% of total health spending of $1149.8 billion in that year.

Where private insurance enjoys this subsidy, the proportion of health care reportedly financed through that channel is in reality partly financed by governments. Private insurance plays a much larger role in financing health care in the United States than in Canada; official data report 34.2% of the total flowing through this channel (in 2000). But accounting for the public subsidy would bring this share down to less than 25%. This, plus adjusting for certain other accounting peculiarities, reduces the private share of U.S. health spending to about 40% of the total (Fox and Fronstin, 2000; Woolhandler and Himmelstein, 2002). Hence the adjustment to the United States column in Figure 2.

Tax expenditure subsidies are as old as private insurance in North America, and seem deeply rooted in our financing structure. In 1981, the federal Minister of Finance, Allan MacEachen, attempted to withdraw the subsidy and tax this particular employee benefit like any other. But he ran into heavy political opposition and withdrew the proposal. The pattern in other countries is more mixed; some provide such subsidies, others do not, and there are examples of subsidies being offered and later withdrawn – as in Quebec in 1993. But the constituency for such subsidies is smaller in most other countries, because private insurance is much less widespread.

The public subsidy to private insurance has three major effects.

First, it expands the market for and the coverage of private insurance. Medical expenses paid out of pocket are paid with after-tax dollars; those paid for through private insurance are paid for with before-tax dollars. Apart from the benefits of risk-spreading, reimbursement through insurance is actually more expensive than out-of-pocket payment ("self-insurance") because of the necessary administrative overhead costs. The public subsidy reverses this disadvantage.[11] In its absence, the level of private coverage and the proportion of healthcare costs paid through this route would surely be reduced (though it is hard to say by how much).[12]

Second, because the subsidy is only available for employer-paid premiums, it has contributed to the almost complete dominance of the private insurance market by employee group contracts. It thus reinforces the natural dynamics of private health insurance markets, in which asymmetric information and adverse selection severely limit the scope of individual contracting.[13] Private insurers discovered very early on – at least fifty years ago – that individuals seeking to purchase coverage on a voluntary basis tended to be of higher than average risk status ("adverse selection") and that it was difficult or impossible for insurers to be as well informed about that risk status – current and expected future health – as individuals themselves (asymmetric information). By contracting with employee groups, in which individual participation was not optional but required, insurers could select a relatively low-risk population to cover. Thus, where private insurance exists, it covers a significantly lower proportion of health expenditures than of the population.

The fact that most private insurance in North America is purchased by employers and provided to workers as an employment benefit has led to the widespread belief that employers actually pay for the coverage of their workers. Most economists, however, argue that workers actually pay collectively for their coverage in the form of foregone wages. Thus, the assembly of funds through the private insurance channel, net of the tax expenditure subsidy, will draw upon wage incomes. The amount paid by the members of a particular employee group will depend upon the risk status of that group, but within the group the distribution of burden will depend upon the outcome of the wage bargaining process.

A third very significant but little-noticed feature of the tax expenditure subsidy is its steeply regressive effect. The value to an individual of any tax exemption depends upon that individual's marginal tax bracket. The exemption of an employer-paid benefit costing $1000 is worth $500 to someone in the 50% marginal tax bracket, $250 to someone in the 25% bracket, and nothing at all to someone whose income is too low to attract income tax. This regressive effect is accentuated by the fact that the extent of private coverage rises with income level.

A form of tax expenditure subsidy is, of course, also provided for out-of-pocket medical expenses insofar as these can be applied to reduce liability for income tax. But the benefit, at least in Canada, is much less. Only expenses above 3% of taxable income yield a federal tax credit – not an exemption – and this credit is based on the lowest tax bracket rate (in 2001, 16%). Depending on the province of residence, this would gross up to about 25%. Employer-paid premiums, by contrast, are fully exempt from taxation and the value of the exemption rises with the taxpayer's marginal tax rate. For top-bracket earners in 2001, the value of the subsidy from the federal government would be 29% of total premiums, with the provincial contribution (outside Quebec) bringing this up to about 50%.[14]

Mandation – A Public Requirement for Private Payment

The tax expenditure subsidy uses financial incentives to encourage the purchase of private insurance; mandation uses public authority to require it. Mandation has at various times been recommended in the United States in order to achieve universal coverage outside a public program (Pauly *et al.*, 1991); it has more recently been adopted in Quebec to expand private drug coverage (Morgan, 1998). In essence, mandation is a form of taxation (legally required payments) in which the revenues are channelled directly to private insurers and so remain "off-budget" for governments.

The coverage and pricing of mandated insurance nonetheless requires close public regulation of the content of these "private" contracts in order to suppress the natural forces of private insurance markets. Private, for-profit insurers, if they are to survive in competitive markets, must and do price coverage according to the risk status of the insured. The unhealthy pay more, the healthy pay less, whatever their income levels. Comprehensive private coverage is thus a much heavier financial burden for the unhealthy and unwealthy, or is simply priced entirely out of their reach.

Governments must then restrict competition so as to permit/require private insurers to accept all comers at similar rates, and cross-subsidize the unhealthy at the expense of the healthy. Alternatively, they can subsidize the coverage of the former from public funds, or simply provide public coverage for the higher-risk segments of the population, the elderly and the poor – as Quebec has done with its "universal" drug insurance program. This is also the pattern of health insurance in the United States, except that private coverage is not mandated among the general population, only heavily subsidized.[15]

Integrating User Charges with the Income Tax

Other forms of hybridized revenue have received considerable attention recently, but do not appear to have been put into practice on any significant scale, if at all. A proposal with a very long history – at least thirty years – is the combination of tax finance and user payments by linking individual income tax liability to the public outlays for that individual's health care (Feldstein, 1971; OECD, 1976; Gordon *et al.*, 1998). Some portion of the costs associated with a person's care might be added directly to his/her tax bill; alternatively, some proportion of these costs might be treated as a "taxable benefit" and added to taxable income before computing tax liability.

The net effect, for any given level of total revenue raised, would be to lower the rate of taxation of income as normally defined, and associate a financial cost with the individual use of care – a user fee. But the user fee would look like a form of taxation, and would vary according to the user's tax bracket. Those with higher taxable incomes ("those who can afford it") would pay a higher user fee for any given level of expenditure on their behalf. "Those who can afford it" but generate no expenses would of course pay nothing extra, and would in fact enjoy a lower rate of taxation on their net income. Such proposals attenuate somewhat the regressive nature of user fees unlinked to income, but only somewhat. They also make very explicit the central feature of all user fees – that they are inevitably "taxes on the sick" (Lewis, 1998).

"Medical Savings Accounts" – The Latest Thing

A much more recent proposal (at least in Canada), the so-called Medical Savings Accounts, would hybridize across government, private insurance, and user pay channels. Details vary, but in general individuals or households would be allocated a certain sum of money per period, either as a direct grant by government or through some form of favourable tax treatment such as tax exemption of individual contributions. From this account they would be required to pay for their own health care. Those with surpluses in their accounts at period end might be able to withdraw all or some part of the surplus for personal use, or perhaps carry forward surpluses to apply against health expenditures later.

Those who over-run their accounts would be personally liable for all or some part of additional costs, up to some "catastrophic" limit beyond which government would cover all costs; alternatively, individuals might wish or be required to purchase private insurance for these "catastrophic" expenses. (Both the basic allowance and the catastrophic threshold could be adjusted to individual incomes.) Since severe illnesses are now primarily chronic, however, and high expenses in any one period are closely correlated with high expenses in the next, it is hard to see any significant role for voluntary private insurance. Coverage might be readily available to the healthy and low-risk population, but that is not the group using most of the health care and generating most of the costs.

There is ample room for adjusting the details, but the essence of such proposals is first, to increase the overall level of user charges and second, to open up private market opportunities in health care by shifting the payment role from governments to individual "consumers". Tax exemptions for individual contributions to such "savings" accounts would also shift the public contribution from direct, observable payments to indirect, tax-expenditure subsidies.

The user-fee aspect arises because individuals are liable for expenses beyond the amount in their account, and is significantly extended if some part of account surpluses flows back to them as income. Credit for amounts not used is just as much a user fee as liability for amounts used, even if the bookkeeping looks different. Either way, an individual's net economic position is affected by the use of care.

Axes of Conflict of Interest in Financing Choices

The choice among, or better the mix of, financing sources for health care will have consequences that can be grouped under three main headings:

Who Pays?
Who Gets? and
Who Gets Paid?

Who Pays? reflects the fact that while (abstracting from foreign aid) collectively the residents of a country must pay the full costs of the care they use, the distribution of the total bill will depend upon the mix of financing sources used. Any changes in that mix will inevitably redistribute the burden, making some better off in straight financial terms, and others worse off. These redistributive patterns are in principle relatively transparent, though relatively little studied until the last decade.

Who Gets? on the other hand addresses the pattern of benefits, or at least use of health care services, that emerges from a particular health care system. How the system is financed and how the revenues are raised, may affect the pattern of access to services, where access includes not only what is provided to whom, but under what circumstances – quality, timeliness, convenience. To what extent is access responsive to "need", as viewed by either clinicians or patients, and to what extent is it conditioned by the willingness/ability to pay for services? Can those with more money buy more or "better" services, and buy their way to the front of any queues?

Finally, *Who Gets Paid?* refers to the levels and patterns of incomes associated with alternative financing arrangements. This includes the overall expenditures on health care for a given population, which are necessarily equal to the total incomes earned by those who provide resources for the production of health care. Some modes of financing are better adapted to achieving global cost control, if that is an objective. But total expenditures are the product of quantities of output multiplied by their relative prices. Cost control – or cost explosion – may come about through constraining (expanding) the quantity and range of services provided, or through limiting (enhancing) the relative incomes of those who supply resources to the sector – the wages of hospital workers, for example, or the fees of physicians, or the profits of drug company shareholders.

To make these relationships more precise (if not necessarily more transparent), consider the Revenue-Expenditure-Income identity diagrammed in Figure 3. We can write it as:

$$TF + SI + UC + PI = P \times Q = W \times Z$$

where TF, SI, UC and PI represent the total amounts of money contributed for the reimbursement of health care providers, by all persons in the society (including those who work for or otherwise participate in health-care "firms") through taxes, social insurance, private insurance, and out-of-pocket payments, respectively. P x Q represents the total expenditure on those services, where Q is a vector or string of amounts of different types of goods or services, and P is a corresponding string of their respective prices.

A provincial fee schedule for physicians, for example, identifies all the different medical acts for which physicians will be reimbursed, and the corresponding string of fees, or prices, at which each is reimbursed. The components of Q are the numbers of each type of service that were actually provided in a particular jurisdiction and time period. Multiplying the number of each type of service or procedure actually performed by the corresponding price, and summing over all items, yields the "vector product" P x Q, the total expenditure on (fee-practice) physicians' services. For services reimbursed other than by fee per item of service – global hospital budgets, for example, or capitated group practices – the breakdown of total expenditures into price and quantity components may be neither as simple nor as precise. But there will always be some implicit price associated with each product or service provided.

The total incomes earned can correspondingly be factored into W x Z, where the elements of the string W represent the rates of reimbursement for particular resource inputs, and Z represents their amounts. An element of W might be the wage rate per hour of nursing services of a particular type, for example, or the net income per hour of a particular type of physician. The number of hours of skilled labour supplied by each would be the corresponding elements of the vector Z. But other inputs might be square feet of building space, or amounts of capital invested. Levels of building rental and rates of return on invested capital, shareholder profits – are also elements of W.

Thus, a negotiated increase in nurses' wages would be represented by a rise in the corresponding elements of W. If nursing employment (Z) remains constant, and there is no change in level of hospital activity (Q), then the effective price (P) of hospital care has risen, and in a publicly funded system T – the amount of tax revenues going to hospital budgets – must rise. If, on the other hand, hospital budgets are frozen, then Z must fall as W rises – fewer but more highly paid nurses, or cuts in other parts of the hospital budget. This could be reflected in a fall in hospital output Q and a corresponding rise in effective price, or it could result in increased "efficiency", with outputs staying the same as resource inputs fall – increased output per hour, so that increased wages are not passed on in higher prices. However, jobs will be lost if total budgets do not rise.

What has actually occurred will always be controversial, because hospital output is only partly linked to measurable quantities such as procedures performed, cases treated, and in-patient days. The quality of care and resulting patient outcomes are the real objectives, and there is always room for disagreement over whether or not "quality" has changed. The identity does not say what will be the consequences of a change to any one of its component variables; what it does is to constrain the possible scenarios, the range of different things that *can* happen, and ensure consistent stories. Whatever the consequences, they must add up correctly.

But the identity holds only at the aggregate level, for the whole society. For any one individual, revenues contributed may greatly exceed, or fall far short of, the total health care expenditures on his/her behalf, and each of these may exceed or fall short of the income received from the health care system. The healthy surgeon will receive more in income than s/he contributes in public or private payments, and much more than the expenditures on his/her behalf. The wealthy and healthy businessman will likewise contribute far more in revenue than

s/he accounts for in expenditure, but will (unless the business produces some form of health product or service) earn little in income from health care. (S/he might, however, own shares in a drug or medical equipment company.) The elderly and chronically ill pensioner, however, may receive quite a large volume of services, costing far more than s/he contributes through any channel, while receiving little or nothing in the way of income from the health care sector.

These differently situated individuals represent, to a first approximation, the patterns of economic interests that are differentially affected by changes in the mix of financing mechanisms. Is one primarily a contributor to or a recipient from the financing of health care, and among contributors, does one contribute more, or less, than the expenses generated on one's behalf? *A priori*, then, it seems plausible that the pattern of support for or opposition to particular financing mechanisms will be influenced by the pattern of anticipated financial gains or losses. Not exclusive, of course, we are all more than simply economic animals. But where you stand does tend to be correlated, in part, with where you sit. Disagreements over health care financing have roots in real, and permanent, conflicts of economic interests.

Who Pays (what share of the total costs of health care)?

Everybody pays, of course. Except for the totally destitute and dependent, everyone in the lower left hand box of Figure 3 contributes some amount of money that will work its way into health care expenditures and health sector incomes. But how much, or what proportion of the total, will be paid by different individuals, or by individuals in different circumstances?

If health care is wholly financed from public general revenue, people contribute in proportion to their tax liabilities. Subject to some considerable complexity of detail, these tend to be roughly proportionate to income. Conversely, in a system financed entirely from user charges, people's contributions would be proportionate to their use of care, which is more or less proportionate (again subject to qualifications in detail) to their need for care, or health status. Accordingly, any shift in the mix of financing sources towards (away from) user pay and away from (towards) tax finance will lower (raise) the share of burden borne by the wealthy and healthy and raise (lower) that borne by the unhealthy and unwealthy. Equal and off-setting changes in T and C balance at the aggregate level, but not (except by accident) at the individual level.

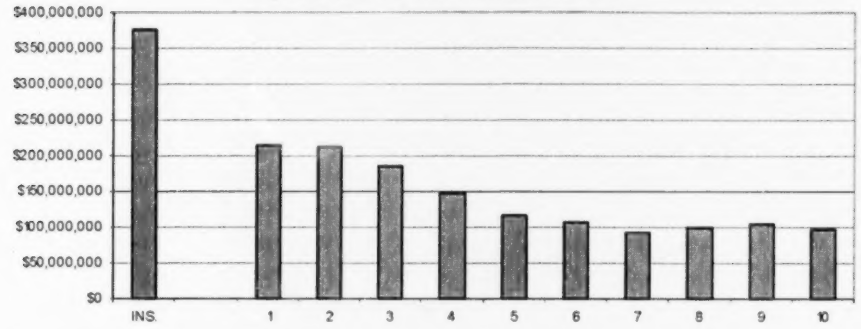
Conceivably, if illness were highly (positively) correlated with income and tax liabilities were not, a shift from tax finance to user pay could raise the share of the burden borne by some higher income people – the wealthy and unhealthy – while benefiting the healthy and unwealthy. But in all developed societies, the correlations go the other way, health and income are highly correlated, as are income and tax liability.

The relationship between income level and contribution is illustrated in Figure 4. This is derived from a Manitoba study (Mustard *et al.*, 1998a,b) linking individual-level administrative records from the universal public programmes covering hospital and physicians' services with census long-form records of family incomes and estimated tax liability for a large sample of the provincial population. The figure displays the distribution of public expenditures and of corresponding tax liability by income decile (scaled up to the whole provincial population of about a million), with the small but expensive institutionalized population as a separate category.

Panel 4a shows the dollar amounts spent by the public plans on the care of people in each income decile in 1994; panel 4b shows the estimated amount of tax contributions. Panel 4c shows the difference, by income decile, between the total cost of care used and total taxes paid; finally, panel 4d shows this gain or loss as a share of total family consumable income. (The permanently institutionalized have no significant income.)

The scale of the transfers is quite striking, particularly from the top income bracket, making very clear the potential economic advantage to people in that group from shifting the financing mix away from (almost) complete tax finance to some form of private payment. Any such shift would shrink all the bars in panel 4d toward the X-axis, reducing the transfer of purchasing power from the more to the less wealthy that is embodied in the present (1994) financing system. But since those with very low incomes and large needs are unlikely to be able to bear a substantial portion of the costs of their own care, any shift in financing from taxation to private payment would presumably involve a transfer of funds primarily from the middle to the upper deciles of the income distribution.

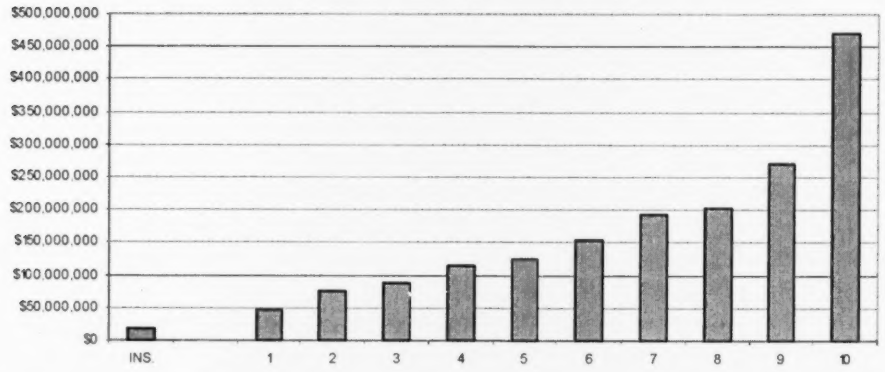
FIGURE 4a: Expenditures on Publicly Financed Health Care, by Income Decile, Manitoba, 1994



Source: MCPHE. INS. – Institutionalized Population

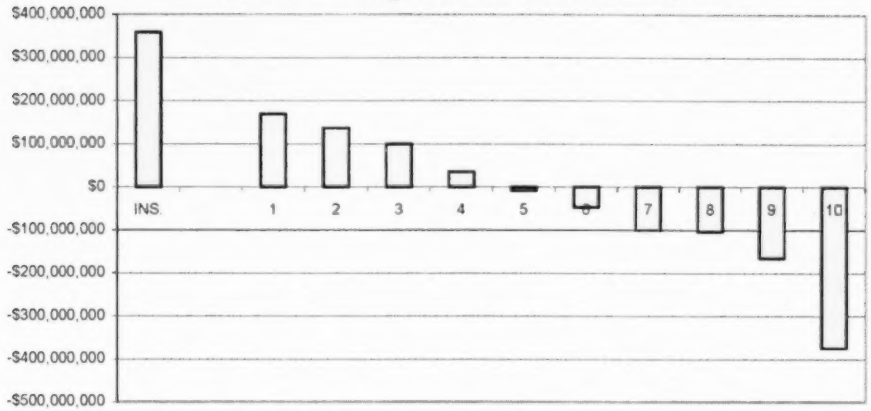
This pattern of distributional effects is not at all mysterious; indeed, it should be intuitively obvious and beyond dispute. Whether one or other pattern of burden distribution is more or less "fair" is of course a matter of personal values, about which rational people may legitimately disagree. But there seems to be no legitimate basis for disagreeing with van Doorslaer *et al.* (1993), on the basis of their detailed analysis of countries in the European Community: "... out-of-pocket payments tend to be a highly regressive means of financing health care..." (p. 42).[16] Subsequent analyses have confirmed this conclusion (van Doorslaer *et al.*, 1999; Wagstaff *et al.*, 1999).

FIGURE 4b: Tax Contribution to Health Care, by Income Decile, Manitoba, 1994



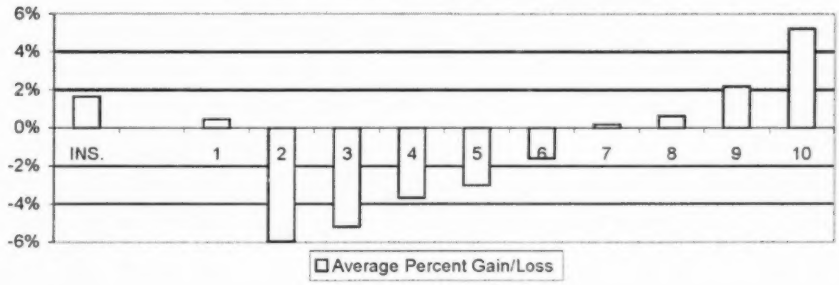
Source: MCPHE. INS. – Institutionalized Population

FIGURE 4c: Net Transfer to/from Income Decile, Public Financing of Health Care, Manitoba, 1994



Recognition of this regressivity, and its inconsistency with prevailing notions of fairness, has motivated proposals mentioned above to integrate user payments with the income tax. If tax financed health-care costs were made a taxable benefit for example, in effect the proportion of medical bills paid out of pocket would vary by income class, and this would mitigate their regressivity. But the degree of mitigation depends upon the number of income tax brackets and the degree of difference between the bracket rates.

FIGURE 4d: Net Transfer by Income Decile, as Percent of Consumable Income, from 20% Cut in Income Tax and Off-setting Poll Tax (INS and Dec. 1 exempt), Manitoba, 1994



The federal income tax does have some progressivity built into it, but not much. Consider for example a person whose use of health care generated $1500 in Medicare outlays in 2001 (roughly the national average), and suppose these were added to his/her federal taxable income. With earnings of $25,000, s/he would have to pay $240 extra (16% of $1500) or 0.96% of before-tax income. At $50,000 the extra liability would be greater – 22% of $1500 or $330 – but only 0.66% of income. At $75,000 the liability would rise to $390, or 0.52% of income, and entering the top bracket at $100,000, $435 or 0.44%. From then on, of course, the liability for extra contributions remains constant, dropping steadily as a share of income as income rises. At $250,000 one would pay only 0.17% of income. Allowing for provincial taxation would raise all liabilities and percentages by roughly 50%.

A so-called "flat tax" with a constant marginal tax rate regardless of income level would eliminate any mitigation of the regressivity of user fees. If everyone is required to pay the same proportion of income in taxes (perhaps after some basic exemption) then adding medical payments to the tax base would increase everyone's tax liability by the same proportion of their medical expenses, regardless of income. These liabilities would then be precisely as regressive as any other proportional user fee.

But the extra tax liability is only half the story. Amounts collected through this mechanism would permit lowering other taxes, or substitute for other increases. Assuming a tax system that is roughly proportionate overall, these alternatives would take (or return) four times as much from (to) the person at $100,000 as to the person at $25,000, compared to the 81.3% difference in liability from taxing Medicare expenditures. Above $100,000, the difference builds up rapidly; at $250,000 the difference in liability under a proportionate tax system is ten times. Comparing this mechanism for raising revenue with the alternative of general taxation demonstrates the point made graphically in Figure 4; it is significantly more advantageous for people with higher incomes.

These calculations, however, pertain only to someone accounting for the *average* level of Medicare outlays in any one year. But it is a universally-observed pattern that care use is heavily concentrated among a relatively small proportion of the population. Reid *et al.* (2002) provide a relatively comprehensive survey of studies showing this concentration for different countries, time periods, and types of care, while Forget *et al.* (2002) show the extraordinary concentration of physician and hospital expenditures in the Manitoba population over the period 1997-99. They found that the top 1% of the population accounted for 26% of expenditures, while the bottom 50% of the population accounted for only 4%. Since the average annual rate of expenditure was $730 per capita,[17] this implies an average expenditure of $18,980 among the top 1%, and $58 among the lowest 50%. Among the top decile of users, the average cost was about $5000, and among the next decile, it was $1000. The addition of these sums to taxable income would have added very substantially to the liabilities of a small proportion of the population, while having little or no impact on the majority.

The bulk or these very high costs are accounted for by hospital use, but Forget *et al.* also find high concentration among use of physicians services, as do Reid *et al.* (2002) in British Columbia. In 1996/97, for example, 5.3% of the adult population of B.C. accounted for 33.7% of total (non-obstetric) fee payments to physicians for adult care, or $2640 each on average.

78.7% accounted for the other 66.3%, or an average of $350 each, while 15.9% generated no medical billings. About half of the high users were over 60, compared with less than one quarter of the low users and ten per cent of the non-users. Analysis of the diagnostic and procedural patterns shows that these high users are significantly sicker than the rest of the population, a conclusion that also emerges clearly from an analysis of Ontario data relating individual self-report of health status to public expenditures for physicians' services (Finkelstein, 2001). People who use a lot of health care are sick.

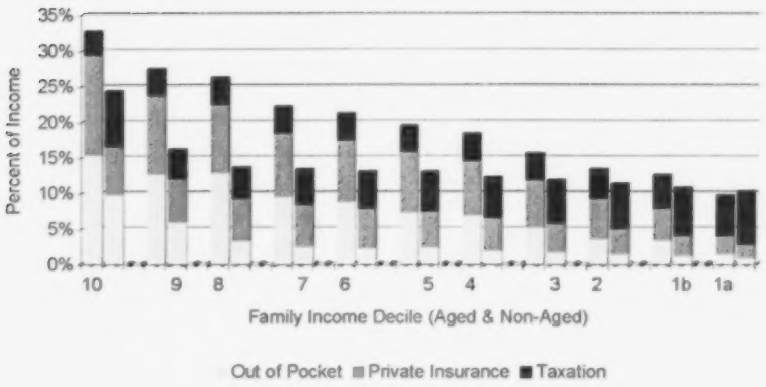
Thus the "hybridized" tax and user-fee proposal is not only regressive, taking proportionately more from those with lower incomes and benefiting principally those with higher incomes, but it also imposes very substantial financial burdens on a relatively few mostly very sick people. The relatively trivial-appearing numbers above – less than one percent of income paid in extra federal tax by the "average" user earning $25,000 per year, look very different if we apply the ratios found by Forget *et al.*[18] Half the population in the $25,000 bracket will incur, on average, an increased federal tax liability of about $20, or 0.12% of income, grossing up to about $30 or 0.18% to allow for the provincial component of income tax. The top 10% of users will see their federal liability increase by nearly $1500, or 6% of income, grossing up to about 9%.

These "back-of-the-envelope" calculations are illustrative only; a more precise analysis would require knowledge of the multi-year joint distribution of both hospital and physicians' services by income class and preferably by tax bracket, which would be a major research exercise. But no such data-intensive exercise is needed to support the general observation. Relative to financing from general taxation, the hybridized tax and user-fee approach is very little different in its distributional effects from the coinsurance form of user fee in which users pay some percentage of the costs incurred on their behalf. There is no getting away from the fact that user fees, whatever form they take, tax the sick. And relative to general taxation, they relieve the wealthy.

Private insurance adds some additional considerations to the question of "Who Pays?" Universal private coverage, if it could be achieved, would be similar to tax finance in that contributions would not depend upon the experience of illness and the use of care. Insofar as private insurers often require some degree of financial contribution by the user of care, a shift from public to private coverage might still involve some transfer of funds from the unhealthy to the healthy, but of course public programs may also impose such user payments, with the same distributional effects.

The major difference, however, is that private insurance, if sold by private, for-profit firms in a competitive market, will carry premiums that are related to the expectation of illness, and not to income level. (Higher income people may pay higher premiums if they purchase more comprehensive coverage, but for the same package, the price does not vary with income.) Accordingly, if the insurance market is functioning efficiently, the distribution of burden across the income spectrum should look very similar to the distribution of average expenditures for care.

FIGURE 5: Share of Income Spent on Health Care, United States (1987), by Family Income Decile and Payment Form



And indeed it does. Figure 5 is drawn from the work of Rasell *et al.* (1993, 1994) who analysed survey data for the non-institutionalized population of the United States. It shows the distribution by income decile of total payments for health care (using a more comprehensive definition than in Figure 4) through each of taxes, private insurance, and out-of-pocket payments. Their results are shown for households with heads over and under age 65, because the former are covered, for hospital and physicians services, by the national "Medicare" program – national, universal and tax financed.

Figure 5 shows the contrast between the progressivity of tax finance in the United States and the regressivity of both out-of-pocket payment and private insurance. The similar pattern for both modes of private finance suggests that the U.S. private insurance market does, in aggregate, link contributions quite closely to expected use. These highly regressive components of the financing mix overwhelm the progressivity of the tax financed component and make the whole distribution highly regressive.

Perhaps surprisingly, however, this pattern is found even among the elderly, covered by the U.S. version of Medicare. The very substantial deductibles and copayments, built into the public program ostensibly to control costs, contribute to making the overall mix markedly regressive. Individuals can and do buy private "Medigap" coverage for these charges – as they do in France to cover the *ticket modérateur* in the statutory health insurance scheme. But Medigap coverage, being private, is also regressive in its distribution of financing burden (premiums are based on risk status, not income).

The U.S. Medigap industry also illustrates the link between user fees and private insurance in a system that is predominantly financed from public sources – as all systems in developed countries are. If private insurers are to have any market at all, the public system must embody substantial user fees and/or service exclusions – preferably both. Private insurers are therefore

consistent advocates for such charges. The arguments they offer may be many and various, but the underlying objective is to open a market for their product.

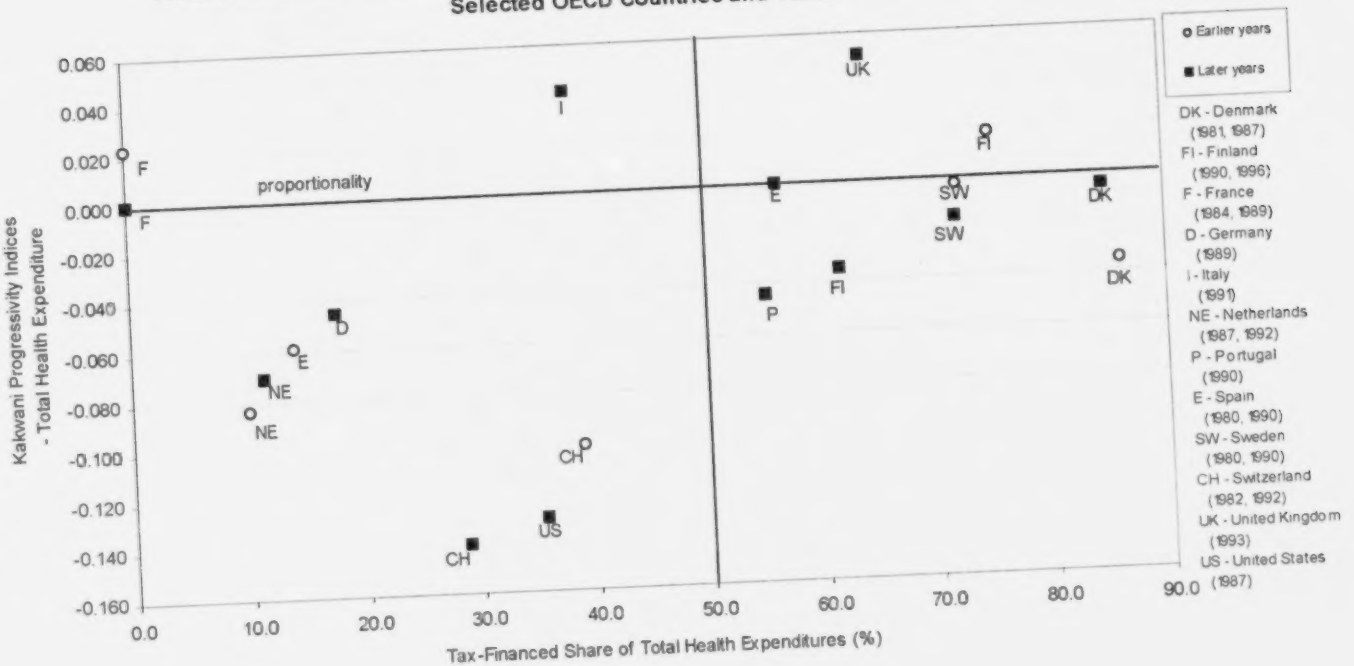
There is, however, a second distributional aspect to the choice of private or public insurance. As noted above, in Canada, the United States and some European countries, there is a tax-expenditure subsidy for private insurance that is purchased by employers on behalf of workers. The size of this subsidy for any individual worker is equal to the total amount paid by the employer multiplied by the marginal income tax rate of the employee. But the latter, and typically the former as well, increase with rising incomes. Accordingly, the subsidy is much larger, in absolute terms, for those with higher incomes. Smythe (2001) estimates that in 1994 the subsidy from federal and provincial governments in Canada amounted to about fifty cents for households with an annual income under $5000, and rose to $250 for those earning over $100,000. In the United States, Sheils and Hogan (1999) estimated a monotonically rising value of the subsidy in 1998, from an average of $71 for family incomes under $15,000 to $2,357 for those over $100,000. Thus, the inherently regressive nature of private insurance financing is markedly accentuated when private coverage is subsidized through tax exemption. Private premiums are not only a smaller share of rising incomes; for those eligible to the tax expenditure subsidy, the net cost is actually lower in absolute value.

Outside North America, however, the private insurance picture is somewhat more complex. Where private insurance is primarily purchased by people with higher incomes, as a way of gaining preferred access to more timely, convenient, or perceived higher quality care – as in Germany, the Netherlands, Italy, Portugal, and the U.K., private insurance premiums are correspondingly distributed progressively – they take up a larger share of the incomes of wealthier people. But if private coverage enables the better-off to opt out of the general public insurance programs, as in Germany and the Netherlands, the overall financing system become much more regressive (Wagstaff et *al.*, 1999; van Doorslaer et *al.*, 1993, pp. 42-44).

The range of possible outcomes is indicated in Figure 6, drawn from Wagstaff *et al.* (1999), and showing for a number of European countries (and the United States) the relationship between the proportion of health care financing coming from taxation, and an index of the overall progressivity or regressivity of health system financing. Overall, there is a clear relationship between tax finance and greater progressivity – or lesser regressivity. (Since health expenditures follow needs in being highly regressively distributed across the population, a mildly regressive financing system can still bring about a substantial net shift of resources down the income distribution.) But focusing on this overall relationship alone would miss a lot of relevant detail.

The United States and Switzerland, being the countries relying most heavily on private finance, have correspondingly the most regressive financing systems. But among those with primarily social insurance systems – Germany, the Netherlands and France – the former two are also highly regressive while the latter is close to proportionate. The key difference is that in France there is no income ceiling for contributions, and no opting out into private insurance for the very well-off. Social insurance systems can thus have very different distributional effects, depending upon how the contribution system is structured.

FIGURE 6: Relation between Tax Financing and Progressivity of Total Health Expenditures, Selected OECD Countries and Years



Sources: Wagstaff *et al.* (1999) and calculations by Hakkinen for Finland

The most progressive financing systems, however, are tax-based, with no provision for opting out. Purchasers of private coverage must pay for it in addition to their public contributions. But it is also worth noting that the Nordic countries, where tax finance is most heavily used, appeared at the time of the study to have had *less* progressive tax systems than, say, the United States, Germany or Switzerland. (Or Canada, where there is overall a relatively low level of public finance for health care.) These data suggest a possible political trade-off between the progressivity of the tax system and the extent of reliance on tax finance for health care – perhaps reflecting the effect of political resistance from the better-off to over much income redistribution (Evans, 2000, 2002a).

The overall distributive effect of choices among modes of financing health care obviously depends upon the progressivity or regressivity of the tax system as a whole. Historically, Canadian tax systems have been estimated to be roughly proportionate to income, or mildly progressive, with the progressivity of the income tax offsetting the regressivity of other sources such as consumption taxes. However, income tax cuts in the latter half of the 1990s have been primarily focused at the upper end of the income distribution and are likely to have reduced both the progressivity of the income tax and its share in the overall tax mix. This would tend to reduce the redistributional effect of the tax-financed health care system.

The most obvious examples of this form of regressive shifting in the tax mix have been provided by British Columbia and Alberta, both of which have reduced their income taxes and made up part of the lost revenue with increases in the provincial poll taxes known as health care "premiums". Such a change in tax mix can lead to a considerable transfer of income from the lower and middle ranges of the income distribution to the upper and especially the very high end (Evans, 2002b), and that indeed seems to be the provincial intent (Fuller and Stephens, 2002). But it should be noted that the federal government also introduced, in 2001, a five-year program of income tax reduction, with the principal beneficiaries at the upper end of the income distribution, estimated to lower its total revenue by $95 billion.

Who Gets (how much care, from whom, when)?

Above, it was argued that there is no logical connection between changes in the tax mix – however they may be labelled – and patterns of individual use of health care. This may, however, be too simplistic. Legally, the position is quite clear. As noted above, failure to pay provincial "premiums" has no more effect on entitlement to Medicare services than failure to pay income or any other tax. To qualify for federal transfers, provinces must cover 100% of their eligible citizens regardless of whether they have paid premiums. But almost no one in the public knows this. Most people believe that their coverage depends upon payment of premiums, a belief that may well inhibit some from seeking care. There is no hard evidence on the strength of this effect, but it is worth keeping in mind as both Alberta and B.C. raise their premiums.

More generally, however, the pattern of revenue sources used may have considerable impact on the distribution of use across the population, and possibly on the overall level and cost. Here, there are two distinct and diametrically opposed schools of thought, one rooted in standard economic theory and one in the perceptions of providers of health care.

The standard economic theory is familiar from first-year courses and from the business press. If people have to pay more for care from their own pockets, they will tend on average to use less of it. A shift to less third-party payment, public or private, and more user pay is thus predicted to lower total system costs. They will fall still further if people begin to act as "prudent purchasers", seeking out the lowest cost providers and thus placing competitive pressure on providers to hold down prices. In terms of the identity above, raising C and lowering T and/or R causes a drop in Q, and perhaps a drop in P as well. The result is a fall in W and/or Z; provider incomes fall and some resources – in particular, people – leave the industry.

Whether this highly simplified theory of human and institutional behaviour has any practical relevance has been quite controversial, dividing economists into distinct schools along national and ideological lines. But it is fundamentally an *empirical* question: Does the prediction hold, or does it not? More generally, under what circumstances might it hold? This empirical issue must be sharply distinguished from the *normative* question: If the prediction is valid, is that an argument for or against user fees? Traditionally, advocates of public insurance or provision – and advocates of public subsidization of private insurance – have based their arguments on the assumption that removing financial barriers to care was in fact a *good* thing, enabling people to get the care they need, and thus improving overall population health. Overall, larger values of Q – and consequent higher expenditures – meant meeting more needs and improving health.

A number of economists, on the other hand, advocate user fees on the ground that *reducing* the overall use of care represents an increase in the "allocative efficiency" of the economy, and is therefore necessarily a good thing. Unfortunately this evaluative judgement rests on a theoretical mistake, rooted in an incomplete grasp of theoretical welfare economics. The nature of this mistake must be clearly understood in order to appreciate why a number of economists reach conclusions so different from those of most other participants in the health policy debate, and to assess the relevance of their conclusions.

"Efficiency" as the term is used in economic theory has a very special, technical meaning which bears no necessary relation to any judgement about better or worse. "Efficient" patterns of resource allocation can be, in A.K. Sen's words, "perfectly disgusting" from the point of view of any ethical observer. It is quite misleading to use the term in its technical sense, in discussions with non-economists who will typically assume, from general usage, that "efficiency" is somehow necessarily a good thing (Reinhardt, 1992; Barer and Evans, 1992; Culyer and Evans, 1996).

In this technical meaning of "efficiency", the use of health care (or any other commodity) by people who are "unwilling" – which includes unable – to pay for it, is defined as "inefficient" regardless of the needs of the person or the effectiveness of the care. Conversely, use of care that is ineffective or even harmful by persons who are willing to pay for it (strikingly, even if they do not actually pay!) is defined as "efficient". The finding that, for example, mental health services in Ontario are used primarily by those toward the lower end of the income distribution with the most severe problems, while in the United States they are more heavily used by those at the higher end of the income distribution for much less severe problems (Katz *et al.*, 1997), must be judged, from this perspective, as indicating a more "efficient" allocation of psychiatric care in the United States.

But this judgement would not be widely shared in Canada or even, one suspects, in the United States. (Or even among economists as citizens, once they remove their theoretical hats.) Most people seem to regard health-care systems as social mechanisms to improve or maintain health and relieve suffering, at reasonable cost, equitably distributed over the population. We may not be clear or precise as to exactly what we mean by such terms, and may disagree on their interpretation. But there is no evidence to support the notion that citizens in general accept the normative position that people should only get the care which they are willing and able to pay for. If they do not, then the normative foundation of the standard economic argument disappears. "Allocative efficiency", in the conventional meaning of the term in economics, is simply irrelevant.

What remains relevant, however, is a very different sort of argument often conflated with the former. It is often claimed in public debates in Canada that a shift from third party to direct patient payment will increase the overall effectiveness of the health care system by discouraging "frivolous" use of care and freeing up resources to provide more effective care that is now being unduly delayed or denied – rationed – for people with real needs. This argument slides into another related claim, that the health care system is "underfunded" in that needs are going unmet and effective care unprovided, because the public system cannot or will not meet all those needs.

While the simple-minded economic argument held (empirically) that a shift to more direct patient payment would lower overall use and costs, and (normatively) that this would be a good thing, this latter argument asserts that opening up a greater flow of finance through private channels (user pay and/or private insurance) would in fact lead to *increased* overall use and cost, and *this* would be a good thing. The criterion for "goodness" is the putative impact of more care on health, as it is for the claim that direct payment would free up resources by discouraging patient "abuse" of the health care system through "frivolous" care-seeking that does not reflect real needs. The simple economic theory, in contrast, is totally silent on any relation between

health care and health. The normative judgement – which cannot be derived from economic theory itself but must be imposed on it – is simply that people should get only what they are willing/able to pay for.[19] Health *per se* is irrelevant.

The empirical evidence on the impact of user fees on overall access to or use of health care is mixed, and its interpretation, as always, is controversial (Barer *et al.*, 1998; Robinson, 2002). Logically, it seems that user fees, if they are high enough (and enforced), *must* constrain some forms of use, at least for some people. And there is good evidence that, within observed ranges, they do – at least for physicians' services and for drugs. But the evidence is equally clear that they do not selectively discourage only unnecessary or "frivolous" services. The principal impact of user fees, as one might expect, is to reduce use by those with lower incomes. And at least for drugs, there is evidence of a negative effect on health among some of those whose use has been curtailed (Tamblyn *et al.*, 2001; Kozyrskyj *et al.*, 2001). Thus the economist's objective of "allocative efficiency" does appear to come at a cost in terms of health status, particularly among the unhealthy and unwealthy.

But the fact that user fees may restrain some individual use does not in fact demonstrate that it reduces overall use and cost. Such a presumption is known as the logical "fallacy of composition". To the extent that the overall level of use is determined by system capacity, or more generally by the decisions and behaviour of providers, it is quite conceivable that reduced use by some may be made up by increased use by others. That is in fact what the Canadian evidence seems to show. In particular, a careful "before-and-after" study of the introduction of Medicare in Quebec showed precisely this result; a rise in use by lower income people, a fall among higher income people, and overall, no change in total service provision (Enterline *et al.*, 1973a,b; McDonald *et al.*, 1974; Siemiatycki *et al.*, 1980; see also Barer et *al.*, 1998).

Whether or not user fees tend to constrain total expenditures depends, however, on their effect on prices as well as on the use of care. The putative negative connection from C to Q is typically assumed to have no, or even a negative, implication for prices or fees. Yet physicians' organizations in Canada have consistently argued for the right to extra-bill their patients on the ground that this would provide a "safety valve" if provincial governments too aggressively constrained their fees. They have argued that physicians would extra-bill in such a way as not to place an undue burden on their patients, or restrict access to care. This implies that the rise in C would *not* lead to a fall in Q, but only a rise in P – overall *higher* costs for care, and incomes for physicians.

This argument seems convincing. It is hard to understand why physicians would so consistently argue for a policy that would lower their incomes by reducing their workload with no corresponding adjustment in fees. The physicians' argument, however, fits more appropriately under the heading "Who Gets Paid?" since it rests on a claim for higher relative incomes rather than on a concern for patterns of health care use. It does, however, lead to the more general question of why one might advocate private financing – user fees or private insurance – in order to increase the use and/or costs of health care.

The argument is at root very simple. The costs of meeting patients' needs are allegedly increasing rapidly, as the population ages, technology advances, and public expectations grow.

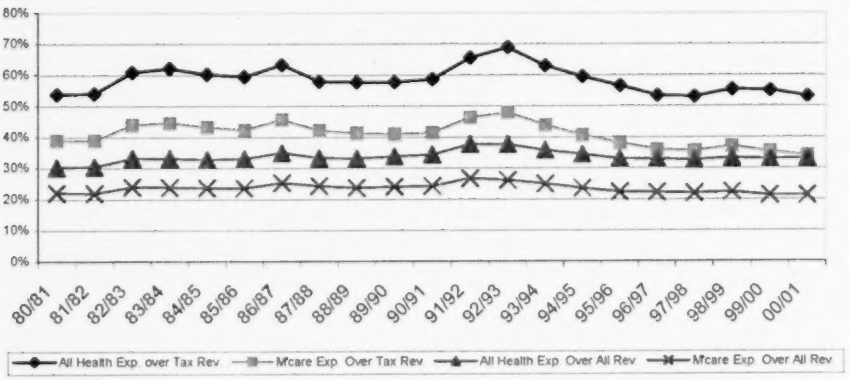
But governments cannot raise sufficient money from an already over-taxed public to meet those needs. Therefore private financing is needed, coming from "those who can afford it", to supplement public resources. Without private financing, patient health will suffer. Q.E.D.

But such arguments contain both errors of fact and gaps of logic. In the first place the claim that public spending on health is absorbing a rising share of national income, or of public tax revenue, is simply false. Spending on the Medicare programs – physicians and hospitals – took up almost exactly the same percentage of Gross Domestic Product (GDP) in 2001 (4.22%) as in 1981 (4.11%). This ratio has been virtually constant for the last five years, a full percentage point below its 1992 peak of 5.28% and lower than in any year from 1982 to 1996 (CIHI, 2001).

Figure 7 shows provincial government spending on these Medicare programs and on all health care, averaged across Canada, relative to total provincial revenues and to provincial tax revenue alone, between 1980/81 and 2000/01. Medicare spending absorbed 34% of provincial tax revenue in 2000/01, well *down* from its 1980/81 level of 38.9% (Canada, Department of Finance, 2002; CIHI, 2002). That ratio reached a peak of 48% in 1992/93, in the wake of the recession of 1989-91, but fell rapidly through the 1990s. All the ratios in Figure 7 show the same pattern: general economic conditions, not "exploding" health care costs, have generated the fiscal strains of the past decade. Relative to provincial revenues, both Medicare and total provincial health spending are now at or below their levels of the early 1980s.

It is quite true that provincial health spending has been rising as a share of total program expenditures, and this has given rise to the argument that rising health care costs are "crowding out" other public programs. But this "crowding out" reflects, not rapid escalation in health spending, but a relative decline in non-health program spending. Provincial governments have been working to restore their fiscal balance and eliminate deficits built up during the 1980s and the recession of the early 1990s. But this process is now complete and, on average, provincial governments are now in surplus.[20]

FIGURE 7: Provincial Spending on Medicare and on All Health, as a Share of Tax and of Total Revenue, 1980/81 to 2000/01



If health spending is not presently out-running public fiscal capacity, then it may be claimed that it will do so in the near future. But it has been repeatedly demonstrated that the common "aging population" argument does not stand up to quantitative analysis (*e.g.* Barer *et al.*, 1995, 1998; Evans *et al.*, 2001) while arguments based on technological advance and/or public expectations involve assumptions about political choices, not projections of historical inevitability (Evans, 2002c).

Thus, it is never made clear exactly why Canadian governments cannot or will not make available sufficient public resources to meet the health needs of the population. The level of public financing is a political choice, and despite claims to the contrary there is no convincing evidence that Canadians are "overtaxed" in the sense that some damage to economic performance is resulting. Surveys suggest that Canadians are actually willing to support higher levels of taxation in order to maintain and expand public health care. Contrasts are often drawn with tax burdens in the United States, but these neglect the fact that the level of tax finance for health care in the United States, as a share of national income, is actually substantially *higher* than in Canada.

The argument that governments cannot afford to meet growing health care needs is often presented under the label of "relieving the pressure on the public system", but the extent to which private financing could do so depends upon the assumed source of that pressure. If the public system is constrained by shortages of personnel, it is unclear how increased private financing could relieve this pressure. A "parallel" private system would just draw personnel away from the public system by offering higher incomes, paid for from higher prices charged to private patients, and reducing the capacity of the public system. As in any private market, "Who Gets?' are those most able and willing to pay.

On the other hand, a number of surgeons claim that they are working well below their capacity, constrained by limited access to operating facilities. Diagnostic specialists make similar claims about shortages of equipment. These limitations could be overcome with more private money, and indeed that seems to be happening as private clinics expand. (These developments raise a number of issues, but the focus of this paper is on the implications of alternative modes of financing, not modes of delivery.)

What can, however, be stated with some confidence is that "separate but equal" public and private facilities will be neither separate nor equal, for perfectly straightforward economic reasons. If a separate, private tier of care were to "take the pressure off the public system" to the extent that access and perceived quality were the same in both settings, no rational person would pay out-of-pocket to use the private system. The differences between the two, perceived or real, must be sufficient to maintain a price differential.

Nor will those distinctions be difficult to maintain, if as is common in two-tiered systems the same practitioners are permitted to work in both the public sector and the private sector. The economic incentives are obvious: to manipulate access to the public system so as to steer patients toward the more remunerative private care, and to limit the time and effort put into the public system. Whether it is the Medicaid system for the poor in the United States, or the National Health Service in Britain, or Australia, or Israel, or Greece, or... the same stories emerge.

If practitioners can earn more in one setting than in another, the higher priced setting draws their effort and commitment, and their patients. The degree of distortion seems to depend, as one might expect, on the extent of the remuneration differential as well as on the prevailing medical culture.

No such distortion emerges if patients can "go private" in a totally separate system, as when Canadians seek care at their own expense in the United States. But contrary to the prevailing rhetoric, very few actually do so – certainly not enough to sustain any sort of independent private market (Katz *et al.*, 2002). This suggests that the survival of a two-tier system does, in fact, depend upon the maintenance of a significant differential of access and/or perceived quality between the two tiers. But this differential need not emerge solely from manipulation by care providers. A government committed to the expansion of private payment as well as private care could also maintain such a differential by the simple expedient of under-providing facilities in the public sector and permitting private investors to offer and charge privately for such services. Private financing would then indeed expand the range of "Who Gets?", but public and private patients will not get the same thing.

Who Gets Paid (how much, for doing what)?

Alternative modes of financing could have implications both for the total amount of income drawn from the health-care sector – equal as emphasized to total health-care expenditures and total revenue. But they will also have significant effects upon *who* gets paid, and how much, for what kinds of activities.

As represented in Figure 3, people get paid for supplying various types of resources to the firms that provide health-care goods and services. But they are also paid for supplying associated administrative and other "overhead" services, without which provision of care services on a large scale and in a coordinated fashion would be impossible. Administrative overhead is an essential part of a modern health-care system, and people are paid for providing these services. But the level of such overhead costs varies considerably depending both on the way in which the delivery system is organized and on the financing channels employed.

These differences take two forms. One class of overhead, "prepayment and administration expense", refers to the costs of running the organizations, public or private, that actually assemble funds and disburse them to providers. The second layer of administrative expense is incurred within provider organizations – clinics, hospitals, and other such agencies – to manage their internal affairs and deal with external funding organizations. Comparative analysis of health care systems has conclusively demonstrated that private insurance requires much higher administrative overheads, for both reimbursing agencies and providers, than do public systems. Nor are these discrepancies difficult to understand.

The primary function of private insurance firms is underwriting, assessing the relative risk status of different potential insurees, and setting premiums for different groups according to their risk. Attached to this core function are billing and claims administration, and marketing. Profitability depends crucially on the ability to identify accurately different risks. If the risk associated with a policy is underestimated, and the premium set too low, the result is underwriting losses; if the estimate and the premium are too high, a competitor may take away the business.

But if a political decision has been made to levy contributions according to ability to pay rather than risk status, neither underwriting nor marketing are needed. In a universal, tax-based system, therefore, no one needs to be paid for these activities, and the corresponding costs disappear. Not surprisingly, private insurance firms tend to be bitterly opposed to the loss of their markets, and in the United States they have successfully campaigned against national health insurance. But the key point is that public systems can raise financing, administer claims, and spread risk over the population more efficiently than private firms can. The unique product that private firms offer – at considerable extra cost – is the differentiation of premiums according to risk status, identifying and charging more to the least healthy. If that is how we collectively want our health care system to be financed, then the services in which private insurers specialize may be worth paying for. But if not, not.

In Canada, the estimated cost of prepayment and administration amounted in 1999 to 13.6% of total payments to private insurers. By contrast, the total reported outlays for prepayment and administration in the public sector were only one percent of outlays for hospitals and physicians' services. U.S. data show a similar pattern: out of $80.9 billion for prepayment and administration in 2000, $53.1 billion was spent by private insurers, and $21.5 billion by the public Medicare and Medicaid programs. These sums represented 19.6% and 6.3%, respectively, of total outlays through these channels (Levit *et al.*, 2002. For the federal Medicare program alone, which more closely parallels Canada's Medicare, the percentage of overhead was 3.3%. The complexities of financing in the much more fragmented U.S. health care environment add significantly to both public and private administrative costs, but the differential remains very large.

But the administrative cost differential can in fact be much larger than is reflected in the payment system alone. Complex financing systems require correspondingly complex administrative systems in the provider institutions themselves. A pair of U.S. researchers have produced a series of studies identifying the differentials in administrative costs between Canada and the United States (Himmelstein and Woolhandler, 1986; Himmelstein *et al.*, 1996; Woolhandler and Himmelstein, 1991, 1997; Woolhandler *et al.*, 1993). They estimate comparative costs in both the payment agencies themselves and in the hospitals and other provider organizations that must deal with a wide variety of constantly changing forms and levels of coverage. Simply determining whether a patient is insured, and if so for what, is a major administrative task in a highly competitive and fluid market environment.

Combining both forms of overhead – provider and payer – they have generated estimates of the *excess* administrative cost, relative to a universal, public single-payer system similar to that of Canada, that are in the neighbourhood of ten per cent or more of total national health expenditures. These excess administrative costs account for nearly half of the difference between Canada and the United States in the share of GDP spent on health care. They would be sufficient, if the funds were transferred from administrative activities to clinical care, to provide full coverage for all Americans (over forty million) who currently have no insurance coverage at all.

But all those excess administrative expenditures are simultaneously someone's income – administrators, accountants, actuaries, lawyers, salesmen of all kinds, specialists in private capital markets – and private investors. Their services may contribute little or nothing to anyone's health, but they *are* paid for, and often paid very well. And that's the point of "Who Gets Paid?" – the choice of financing channel determines whether or not incomes will be available to these people.

The overhead costs of private insurance in Canada, while large compared to the pubic sector, appear to be nowhere near as large, per capita, as in the United States. The difference may be traceable to the fact that the Canadian market is neither very large nor very competitive. Moreover, it is concentrated in those health care sectors, dentistry and drugs, where the variance in expenditure from one person to another is relatively small (though obviously this is changing for drugs). Accordingly, the payoff to large investments in risk identification and marketing has

not been as high as in the intensely dynamic and competitive U.S. market. But trade agreements currently in place have opened up the Canadian insurance market to continental competition; one should probably expect it to resemble the U.S. market more closely if it becomes large enough to be worthwhile.

The evidence on administrative costs of private insurance is relatively clear and rarely contested by students of health care systems. The effects on "Who Gets Paid?" of the mix between out-of-pocket and other forms of finance are themselves more mixed, and contingent on just how the payment process is organized. As noted above, physicians' representatives have for many years pressed for the right to extra-bill patients, over and above provincial reimbursement schedules, on the explicit ground that this would yield them higher fees and incomes. In the identity above, P would rise without any (significant) reduction in Q, and total health expenditures would increase.

It seems likely that any form of user fees that was to be collected by physicians would (re)open the door to such extra-billing – once patients are being charged for care, it may be difficult for them to keep track of how much they are being charged, and whether the practitioner is adding in an extra fee of his/her own. On the other hand, if Medicare payments are added in whole or in part to taxable income, a ban on extra-billing could easily be maintained administratively. Whether it could be maintained politically is another question.

User charges for hospital services would not appear to raise this issue; the amount of such charges could simply be deducted from the hospital's global budget allocated by the province. There would, of course, be extra administrative costs for the hospital, to keep track of and collect such charges. These could become significant – in the United States, hospital finance departments add at least ten percent to hospital budgets – if a large competitive market were to develop for private insurance. In the identity above, this amounts to an increase in Z and P along with C – more people employed in the hospital, at greater cost, for no increase in care output. This is exactly what has happened in the U.S. system over the last two decades – "cost without benefit", as Himmelstein and Woolhandler (1986) put it succinctly – but it would seem unlikely in Canada in the near term unless private coverage expands dramatically.

It should be noted that this point is quite separate from the debate over the impact of private *delivery* of hospital services. Advocates argue that this would lead to greater efficiency of provision – represented as raising productivity or the ratio of Q to Z in the basic identity. This would lower unit costs – a fall in P – permitting either lower expenditures or greater output, or both. Opponents argue that there is no evidence to support this assumption, and that the real objective is "union-busting" – lowering wages, and transferring incomes to private-sector managers and investors without any net savings. They also point to evidence of systematic differences in quality of care between public and private facilities (e.g. Devereaux et *al.*, 2002), presumably a result of cutting costs to increase profits. This paper addresses only the choice of financing mechanisms, taking no position on the question of delivery.

The experience with mixed public-private financing for pharmaceuticals, however, illustrates what may be the most important issue under the heading "Who Gets Paid? Experience with universal, comprehensive tax-financed programs, in Canada and elsewhere, has shown that

governments – when they want to be – are much more effective at cost control than any known private sector institutions. Whether such control is a good or a bad thing – opinions tend to differ between payers and paid – there is no doubt that public finance restricts income opportunities in the provision of health care. This would explain the otherwise anomalous fierce opposition of the pharmaceutical industry to universal "Pharmacare" in Canada.

The industry appears to share the view taken by the National Forum on Health (1997) that a Pharmacare program, cost-shared between provincial and federal governments, would change the incentives faced by those governments in favour of stronger control measures. In a multi-payer system, it appears politically less costly not to take on the industry but to react to cost escalation by transferring a larger share of costs to users. From the industry's point of view, this is the best of all worlds, with governments accepting responsibility for those who cannot afford the product, but unable or unwilling to control overall costs/sales. A national Pharmacare program analogous to Medicare might "hold their feet to the fire", and the result could be lower incomes and profits for drug makers and lower rates of cost escalation.[21]

The Triple Threat: Medical Savings Accounts

The hybrid financing approaches under the general label of Medical Savings Accounts (MSA) are more difficult to categorize because they would probably have significant effects on all three of Who Pays?, Who Gets? and Who Gets Paid?

Advocates argue that they would both reduce overall health care costs and open up a greater degree of choice in that people could decide how to spend the accounts under their own control. Since they involve increased user fees for the heaviest users of care, and allegedly lower total costs, they would shift the financing mix from taxation to user pay. The answer to "Who Pays?" becomes more regressive. But by opening up choices for users, and billing opportunities for providers, they would also change the pattern of "Who Gets Paid?" Further, since these schemes place more public resources in the hands of the lowest users of care, and take them away from the highest users, they might be expected to shift the balance of "Who Gets?" in favour of the healthiest.

Critics, however, have emphasized the very high concentration of health expenses on relatively few, very ill individuals, a concentration that persists over time. As Forget *et al.* (2002) point out, on the basis of a simulation of a typical MSA specification with actual utilization and corresponding expenditure data from Manitoba, the majority of the population would not reach their account limits – unless they greatly increased their spending on health-related commodities. Those few who generate very high expenses would move into the "catastrophic" range where expenses (at the margin) would be fully covered. For them the "MSA" would in effect impose a tax equal to the difference between the account allowance and the catastrophic limit – a poll tax on the very ill. Only those few whose annual expenditure fell into the gap between the account balance and the catastrophic limit would have any financial incentive to limit their use.

On the other hand, the majority of the population who are basically healthy would now both have opportunities to spend public money on a much broader range of designated health services, and also face higher prices charged by providers freed from the constraints of public bargaining. As Forget *et al.* show, an increase in covered outlays among this large group could easily wipe out, and indeed greatly exceed, any reduction in costs resulting from price-responsiveness among those in the gap between the account level and the catastrophic limit. Their analysis suggests that MSAs would probably increase both public and total spending on health care (and thus provider incomes).[22] But they would certainly increase the financial burden on the relatively and very ill while expanding spending opportunities for the healthy.

Forget *et al.* provide the most recent and thorough empirically grounded critique of MSA proposals, though by no means the first (Deber, 1999; Hurley, 2000; Schaafsma, 2002). Advocates, by contrast, have brought forward no credible empirical analysis to support their claims. Their figures simply do not add up, leading to justifiable suspicion as to their real motivations.[23]

> ... MSAs will not save money but will instead, under most formulations, lead to an increase in spending on the healthiest members of the population ... with little attention to the appropriateness or health benefits... When one adds ... concerns about equity ... MSAs have very little to recommend them. It is past time that they be buried.
> Forget *et al.* (2002; pp. 146-7)

Shifting Financial Sources – What Are the Objectives?

> "Would you tell me, please, which way I ought to go from here?" said Alice.
> "That depends a good deal on where you want to get to." replied the Cheshire Cat.

As noted at the outset, it appears unlikely that a modern health care system can function without a predominant role for public financing. Certainly no such system now exists. But it is certainly possible to alter the mix of sources while maintaining the predominance of public finance; one observes considerable variation both between countries and to a lesser extent within countries over time. What scope might there be for altering the mix in Canada, and what might we expect to be the consequences?

The discussion will focus on potential shifts to more private financing for the services of physicians and hospitals, because those possibilities appear to dominate public discussion. A shift towards more public financing, particularly for prescription drugs, would raise some very interesting issues. But a national Pharmacare program seems to have drifted off the public agenda for the moment.

As Figure 2 shows, Canada is already towards the top of the range among OECD countries in terms of the private share of financing for all health care.[24] Private financing for the services of physicians and hospitals is, however, relatively low – about 1.2% for physicians in 2001 and 7.4% (mostly charges for extended care) for hospitals (CIHI, 2001). Would an increase in these percentages take us closer to where we wish to go?

It cannot be too strongly emphasized, however, that this is a question about policy *choices* and public priorities. If instead one takes as axiomatic first that the current Medicare system is (or soon will be) "underfunded" and that no money can be raised from public sources, then very little further analysis is needed. The answer must be increased user fees, in some form or other, and possibly an extension of private insurance to permit those who can buy it to cover those charges. This is an example of the logical fallacy known as "petitio principii", or begging the question, in which the desired conclusion is in effect taken as given in the initial assumptions.[25] We can bypass this logical trap and consider alternative funding sources on their merits.

There exist a myriad of possibilities and proposals for shifting Medicare costs from public to individual budgets, and a detailed analysis of any one of them would be a significant research project in itself. Here, we will consider two "pure types" of user fees, a 20% coinsurance rate applied to all public expenditures for hospital care and physicians' services, and an annual per

person "deductible" of $300 applying to the same expenditures.[26] The various hybridizations discussed above are essentially similar to these in their effects.

For simplicity, we assume that these amounts are billed directly to individuals by the government (parents would be responsible for their children's use), maintaining the current single-payer system of direct reimbursement. A shift to a model similar to private insurance, in which individuals paid their own bills and then sought reimbursement from government, would probably trigger major changes – and major cost inflation – in the whole system.

In round figures, averaging across Canada, the public sector paid out about $1000 per capita for hospital care and $450 for physicians' services in 2001. Assuming no other changes, a 20% coinsurance charge would raise an average of about $300 per person per year, or $1200 for a family of four, and would add about $9 billion to total provincial revenue – serious money. A deductible, requiring each person to reimburse the public treasury for expenditures up to $300 in each year, would (if everyone exceeded this limit) generate roughly the same amount from the Canadian population of about 31 million.

The share of total Canadian health care costs raised from out-of-pocket charges would increase by over fifty percent, from 16% to 26%, higher than in any other country shown in Figure 1. The privately financed share would rise from about 30% to nearly 40%, almost equal to that in the United States (adjusted for the TES) and well above all other OECD countries shown in Figure 2. But are these serious options?

In a word, no. Neither form of user charge will actually yield these amounts, and for the same reason – the very high proportion of service use and costs accounted for by a small proportion of the population.[27] The "average" level of expenditure is made up by relatively few heavy users, and a large number whose use is well below average – some, nothing at all.

Consider first the deductible. Forget *et al.* (2002) find that the lowest-using half of the Manitoba population account for only 4% of hospital and physician expenditures. If the overall average is $1500, then the average for the bottom half is $120 and that for the top half is $2880. Assuming that none of those in the bottom half reach the deductible (Forget *et al.* do not report the median level of expenditure), then the low-using half will contribute only 40% of the expected amount, lowering the estimated revenue from $9 billion to $7.2 billion. (About 15% will contribute nothing.) But within the high-using half of the population, the top decile accounts for the lion's share of spending, with an average per capita of about $8100. The next decile is about $1600, and the next three – from the 50% to the 80% decile – average only $520 each. If no one in the bottom half reaches the deductible level, then it is virtually certain that some in the top half do not either – further reducing the revenue raised.

Still another consideration is the evidence from Figure 4 – not particularly surprising – that people with low incomes tend to use, on average, more services. It seems likely that people below some income level will be exempt from paying the deductible. If the bottom decile of the income distribution are excused, and if we assume, conservatively, that the incidence of high use is not greater among this group, then the revenue potential falls another 10%, to about $6.5 billion. If, on the other hand high users – who would otherwise have to pay the full

deductible – are more prevalent among this bottom income group, then the extent of revenue loss will be greater.

Allowing for low and non-users and for the very poorest still leaves a respectable amount of additional revenue potential. But the deductible requirement begins to look rather like a poll tax with full or partial exemption for the healthy and the poor. If the objective of the deductible is simply to bring in money, why not just impose a $300 poll tax on the whole population (again exempting the poorest) – as Alberta and B.C. do with the health insurance "premium"? This will bring in substantially more money without raising the questionable ethics of exempting the healthy and imposing the full charge only on the most ill. Unless one has some clear reason for *wanting* to "tax the sick", a poll tax seems like a superior vehicle for raising additional revenue without unduly burdening the wealthy.

The same issues arise in more extreme form with the 20% coinsurance charge. That mechanism also exempts non-users, and bears relatively lightly on the low-using majority. But this would not erode its revenue-raising potential, *if* in fact the coinsurance were paid on all services used. The level of contribution would rise proportionate to use, with the heaviest users making up the amounts not contributed by the light or zero users. In reality, of course, this will not happen.

The very heavy users are not only disproportionately elderly, female, and in poor health. They are also much more likely to be poor. Going back to Figure 4, the permanently institutionalized population – about eighteen thousand persons out of over one million – had virtually no income at all, yet were estimated to account for over twenty percent of public outlays on health care in 1994.[28] Together with the bottom two deciles, they accounted for nearly half of the total. Even for those who "can afford it", however, the coinsurance charge will bear very heavily on that small proportion of the population that has the misfortune to be very ill. But for many of the heaviest users, the money simply isn't there. They will either be unable to access the services they need, or they will be exempt from the coinsurance charge. Either way, they will not pay. Exempting only the bottom income decile and the permanently institutionalized lowers the revenue estimate by about 30%, from $9 billion to $6.3 billion.

But there will remain a considerable number of high and very high users in the rest of the population, including among those just above the bottom income decile. "Those who can afford it" may seek private insurance coverage against the risk of these large outlays – that is, after all, what insurance is for. But private for-profit insurers in a competitive marketplace cannot afford to sell coverage to high-risk individuals. What they can sell are contracts covering employee groups – pre-selected as relatively healthy by virtue of being employed – from which individuals are not permitted to opt out. And even on these contracts they receive a large public subsidy. Private insurers would probably offer to extend this coverage to include large Medicare coinsurance charges for this relatively healthy and subsidized population. But they will not cover the elderly and chronically ill, who account for most of the high use.

Conceivably, such private coverage might be mandated, but that would require both further public subsidies and a considerable regulatory effort to prevent insurers from behaving as their profit motivation leads them to behave – avoiding the high risks, or simply pricing them out of

the market. And there will be substantial overhead costs, for both insurers and government, to run such a system. Australia provides perhaps the best example of the problems raised by this sort of "swimming upstream", in trying to use a financing mechanism for what it was never designed to do (Hurley, 2001).

The simplest way of mitigating the impact of a coinsurance requirement would be to place a ceiling on the level of expenditure for which coinsurance must be paid.[29] If this limit were set at, say, the average level of Medicare expenditure, about $1500, then no one would have to pay more than $300 out of pocket in any one year. At this point, however, the coinsurance requirement begins to look rather like the deductible. Those with heavy expenses pay $300, those with no use (or little income) pay none, and the majority of the population contribute somewhere between zero and $300.

The difference is that the coinsurance requirement with these parameters yields much less revenue than the $300 deductible, because fewer than one quarter of the population will reach the "average" level of expenditure and pay the full $300. To raise an equivalent amount of money, the ceiling expenditure level would have to be substantially higher than $1500, implying a substantially greater financial burden for the heaviest users. The arithmetic is straightforward; for any given amount of revenue raised, the coinsurance requirement with a ceiling must place a heavier burden on the highest users of care, and a correspondingly lighter burden on low users – and of course no burden on non-users. Again, the poll tax looks like the superior alternative.

Why then is there such energetic advocacy of alternative, private financing mechanisms, if regressive income redistribution can be achieved more simply just by modifying the tax mix? Indeed, advocates for changing the financing mix in the direction of less taxation and more private financing do *not* highlight the regressive transfer of income from the unhealthy and unwealthy to the healthy and (especially) the wealthy that are their primary and inevitable effect. Instead, they argue that linking financial liability to the use of care will bring other benefits, leading to a more efficient and more effective health-care system. Some even claim that it will be less costly, although as noted above the preponderance of advocacy seems to hold that the Canadian health-care system needs more money, not less. So, is the fact that private financing alternatives will face (some) users with personal financial consequences from the use of care, and face the heaviest users with the heaviest consequences, to be deplored on equity grounds or celebrated and embraced for its supposed beneficial effects? What might those beneficial effects be?

Advocates tend to refer, in general terms, to "limiting demand" for health care and encouraging patients to be more discriminating in identifying appropriate and inappropriate care. Such emphasis would seem inconsistent with the view that the Canadian health-care system is "underfunded" and therefore requires *more* money to meet currently unmet needs. Which is it to be, do we need to spend more, or less? You cannot have it both ways.

A reconciliation might be that there is a good deal of inappropriate use in the present system crowding out genuine needs, and that charges to users – small ones, so as not to restrict access for real needs – would selectively deter inappropriate care. More money is still needed, but not as much more.

This view has been remarkably resilient in the face of consistent evidence that selective deterrence is exactly what user charges do *not* do. To the extent that they influence patient care-seeking, they discourage appropriate and inappropriate care alike. Nor is this surprising, when one considers the implausibility of the proposition that patients deliberately seek out care – especially hospital care! – they know to be inappropriate, simply because it is free. There are in fact some very odd patterns of care-seeking to be found in the Canadian data, but they are mostly associated with mental illness and/or serious problems of substance abuse, and they are neither quantitatively significant, nor growing.

The major pressures for cost escalation arise not from individuals' decisions to seek care, but from the therapies offered once the doctor's office has been reached, from the recommendations for various diagnostic and therapeutic procedures and prescription drugs that are under physician control. If inappropriate care is a concern – and it should be – then focusing on patient behaviour amounts to looking (perhaps deliberately) in exactly the wrong direction.

Insofar as a general policy of user charges may provide a less politically contentious alternative to a serious examination and modification of care patterns, it may actually inhibit efforts to discourage inappropriate care. This has certainly happened in Canada in the case of prescription drugs. And the reason is clear from Figure 3. Whether or not care is appropriate, people are paid for providing it. Effective policies to discourage it threaten those incomes and generate strong opposition. Ineffective policies, that merely transfer costs rather than reducing them, do not.

What, then, do user charges do? Again, the evidence is very clear. They selectively deter access by those with lower incomes, thereby improving access for those with greater ability to pay.[30] Some advocates seem to confuse the two, implicitly assuming that the health problems of the better-off are more serious, or at least more deserving of attention.[31] User charges help them to get it.

If that is considered a proper objective for Canadian health policy, then private financing will be necessary. Simply making the tax system more regressive will not do the job. On the other hand, the fact that advocates do not base their claims on this point, but rather on the spurious claim of selectively discouraging inappropriate care, suggests that they fear their real objective may not be given sufficient weight in the political process.

Insofar as they improve access for those better able to pay, because of private resources or private insurance, user charges do not necessarily reduce the overall use of health care. Their effect on total expenditures is even more doubtful insofar as they provide opportunities for providers to increase their fees. There is in fact no evidence that private financing contributes to global cost containment – the United States is a glaring counter-example. Cross-national comparisons show considerable variation in the costliness of different national health care systems, reflecting different public policy choices. The financing system appears to be a factor, but it is public, not private financing, that conduces to global cost control.

There are circumstances in which user payments may be used either to steer patients in the direction of more appropriate care, or to ration access to services that are not considered

therapeutically necessary (Evans *et al.*, 1994b). The reference pricing system for pharmaceuticals in British Columbia, for example, (Note 21 *supra*) relies on expert clinical and pharmacological judgement, based on the scientific literature, to identify drugs that are therapeutically equivalent, though chemically different. When two drugs are judged equivalent, the public Pharmacare program will reimburse only the price of the lower-cost drug. Patients may, if they wish, pay the difference to purchase the higher-cost version, and some do. The program has been quite successful in reducing costs for those drugs that have been reference-priced, without any evidence of harm to patients. The higher-cost drug is "not medically necessary."

There are obvious risks, however, and the program requires not only a high level of guiding expertise but also a readily accessible system for exempting patients who either cannot tolerate the lower-priced version or do not find it effective. In these cases, the higher-cost drug *is* "medically necessary", and a public agency that withheld reimbursement, or simply placed obstacles in the way of those seeking therapeutically justified exemptions, would not be meeting its obligations.

The same argument has been accepted for years as a basis for preferred accommodation differentials in hospitals – charges to patients for private or semi-private rooms that are not judged necessary on the basis of the patient's medical condition. And user charges in long-term care facilities have an equally long history as a way of "clawing back" public pensions for those with very low incomes, on the ground that room and board are being provided in the institution and should not be subsidized twice. More recently, some provinces have begun to try to recapture the whole of the room and board costs in long-term care, but it is unclear as to how many patients could afford this. In any case, such charges are grounded on the distinction between general maintenance and "medically necessary" care.

But the issue of "medical necessity" can be slippery; it is apparently being used by private medical resonance imaging (MRI) clinics – perhaps with the encouragement of some provincial governments – to exploit waiting times at public facilities. The argument is made that while an MRI procedure is needed, it is not needed immediately, and therefore the private clinic charging patients for more timely service is in fact selling a service that is not medically necessary. It is not clear, however, if patients understand that they are paying for an "unnecessary" service. Certainly, it is not in the interest of clinic staff to tell them. A provincial government seeking ways to evade the provisions of the *Canada Health Act* might simply fail to fund adequate MRI capacity, thus saving taxpayers' money at the expense of patients.

Thus, while the use of financial incentives to encourage patients to make the most cost-effective choices among therapeutically equivalent alternatives has a certain appeal, that appeal rests on the assumption that patients have genuine choices to make and sufficient information to make them. The economic incentives to market "value-added services" do not encourage the provision of unbiased information. Governments looking for ways to contain public expenditures (and not strongly committed, in fact perhaps opposed, to the underlying principles of Medicare) have little incentive to remedy this imbalance. The offloading of costs onto patient, and the expansion of private profit opportunities, can then masquerade as a policy of encouraging patients to make appropriate choices of therapy.

So what reply do we make to the Cheshire Cat?

If our objective is simply to reduce the extent to which Canadian governments redistribute income from the more to the less wealthy – from those who earned to those who did not, as Conrad Black (2000) put it with such charming directness – then there is no good reason to change the financing mix away from taxation. Reducing the income tax and introducing or raising poll taxes will do the job more simply, with less administrative expense, and shift more money than user fees because it will not exempt (wholly or partially) such a large proportion of the population. The regressive potential of such a shift in mix is considerable, moving thousands of dollars a year into the hands of upper-income groups (for the very wealthy, tens of thousands) at the expense of those in the middle and lower income brackets (Evans, 2002c). Moreover, it cannot be interpreted as being in violation of the *Canada Health Act* so long as those in default are not explicitly denied care. (If they are deterred by the erroneous belief that they are not covered, well, that is not the fault of the provincial government. They should read the legislation.)

But if the objective of reform is also to improve access to care for the better-off, then some form of private payment is essential. A straightforward coinsurance charge might seem the best option, even though a deductible might bring in more money, because it would bear more on the heaviest users, and thus have the greatest potential for freeing up resources by discouraging use by this group. On the other hand, if one accepts the argument that these people, being in the main very ill, have little choice as to the use of care, and denying care to the very ill who simply cannot pay is viewed as politically unacceptable, then that would suggest the deductible as a way of deterring unnecessary use by low income people who are not very ill – relatively low users – so as to improve access for "those who can afford it."

It will, however, be hard to avoid interpreting either of these policies as violating the access provisions of the *Canada Health Act*. That is, after all, their purpose. Thus, while the various hybridizations of alternative funding sources have little to recommend them on economic grounds, they may serve to make that violation less transparent. (The public subsidy to private insurance, of course, also serves to make the fiscal system more regressive, thus furthering the objective so clearly expressed by Lord Black.) This lack of transparency may be advantageous as a basis for legal as well as political challenges, if the federal government should attempt to enforce the *Act* against a province introducing such policies.

If, on the other hand, one takes as an objective the reform of the health care delivery system itself, the demanding (and politically dangerous) task of improving the effectiveness of the care delivered and the efficiency with which it is produced, then expanding private financing has nothing to offer. The focus must be on changing the information available to and the incentives bearing on those who deliver the care – the funding structure, not the financing mix (upper right of Figure 3, not upper left). This is a huge topic and task, challenging every nation in the developed world; further privatizing the funding mix will not make it easier and is likely to make it more difficult.[32]

On the other hand, if neither transferring income from the less to the more wealthy, nor improving their access at the expense of the less wealthy, is considered a major priority for Canadian public policy, and if potential improvements in the cost-effectiveness of the health care system (for which there is considerable evidence) are believed politically infeasible or insufficient to permit it to meet present or emerging needs, then the clear implication is that more funding should be made available from tax revenue. This could, but need not, require higher tax rates; it depends upon the general fiscal situation.

But that situation is vastly improved from five years ago, for both the federal and the provincial governments.[33] Those who claim that the public health insurance programs are taking up an increasing and unsustainable share of national and/or public revenues have simply failed to check the fiscal facts. Nor is there any basis for the claim that Canada has reached some absolute limit, for political or economic reasons, in the amount of public money available for health care. The real motive underlying proposals for more private financing is very simple. "The more private funding we have, the more those with high incomes can assure themselves of first class care without having to pay taxes to help support a similar standard of care for everyone else" (Roos and Frohlich, 2002).

Notes

1. Here and subsequently, references to OECD data are drawn from OECD (2001).

2. The widespread impression that health care expenditure in the United States is primarily financed from private sources is in fact incorrect for reasons discussed below (Fox and Fronstin, 2000; Woolhandler and Himmelstein, 2002).

3. In the abstract, it can be argued that some changes generate sufficient benefits for the gainers that they could compensate all the losers and still come out ahead. But unless the compensation is actually paid – which is never part of real-world proposals – then the possibility is irrelevant. The argument that a policy change meeting this criterion represents a general social benefit *even if the compensation is not paid* is logically unsound and simply fraudulent, as Reinhardt (1992) shows.

4. The underlying algebra and the disaggregation of these identities to the individual transactor level, are discussed in Evans *et al.* (1994a), along with the imputations, taken from the national income accounting framework, necessary to ensure identity.

5. The dimensions of "privateness" are discussed in more detail in Evans *et al.* (2000).

6. They have also led to criminal fraud charges being laid against a number of the largest for-profit health care corporations in the United States (Evans *et al.*, 2000).

7. Patients were reportedly charged as much as $750; at other hospitals in Alberta, the flexible implants were included as part of the standard, publicly reimbursed cataract procedure. Bought in bulk, the implants might cost $25.

8. The Government of Quebec, however, removed this subsidy from its provincial income tax system in 1993, and taxes employer-paid premiums as personal income (Smythe, 2001).

9. The Government of Quebec, however, removed this subsidy from its provincial income tax system in 1993.

10. CIHI (1999, p. 14) reports private insurance expenditures in Canada in 1997 at $8.5billion; if one assumes that this amount had grown since 1994 at the same rate as total health spending, the figure for 1994 would be about $7.9billion.

11. This advantage is partly offset by the medical expense deduction for out-of-pocket payments, but as noted below this is of much more limited value.

12. There is widespread agreement among economists that this subsidy is bad policy, though their reasons are radically different. Some, like Martin Feldstein, believe that it encourages over-insurance, leading to overuse of health care, though he and many other economists define "overuse" in a way that bears no relation to the ordinary-language meaning of the term and would probably be rejected by most people (see below). Others, including this author, believe that in the absence of the subsidy private coverage would shrink sufficiently that there would be greatly increased public pressure for expanded public coverage – of drugs in Canada and of health care generally in the United States. Still others may simply regard the distribution of the benefits of the subsidy as unfair.

13. An individual seeking to purchase health insurance may know that s/he is at higher than average risk of making a claim; insurers cannot easily monitor individual health status.

14. The federal Department of Finance (2000, Table 1) estimates the federal component of the subsidy to private insurance as being about five times as large as the medical expense deduction.

15. The Australian federal government has, for a number of years, been trying to use regulatory authority and financial incentives to preserve a major role for private insurance alongside a public system. The ostensible purpose is to transfer costs from public to private budgets; in fact it appears that the costs to the government of trying to maintain both systems outweigh any hoped-for savings. The government is actually incurring substantial extra public costs to pay for its ideological predilections (Hurley, 2001).

16. A regressive financing system, like a regressive tax, takes a larger proportion (on average) of the incomes of people with lower incomes – though not necessarily a larger absolute amount. A progressive system takes a larger share of the incomes of higher income people, and a proportionate one takes, on average, a more or less equal share at all income levels.

17. This figure is well below the $1500 used above for illustrating the regressive effect of taxing health-care expenditures. Part of the difference is accounted for by the increase from 1997-99 to 2001, but most reflects the fact that a significant proportion of hospital costs cannot be attributed to individuals. This represents a limitation on the scope of any such user fees, unless an arbitrary attribution is made for billing purposes.

18. These calculations apply the relative variations in use patterns found by Forget *et al.* to the average level of expenditure reported by CIHI (2001). If it were not feasible to identify or attribute the full amount of provincial spending on physicians and hospitals to individuals, the increased tax liabilities would have to be scaled down accordingly – as would the revenue potential. But the proportionate impacts on differently situated individuals would remain the same. Also, these calculations assume that the distribution of utilization is the same in each income class; in fact, heavier users are disproportionately represented in the lower income brackets. Thus, our calculations understate, to some degree, the additional liability of the "average" individual in the lower income brackets, and overstate liabilities higher up the scale.

19. David Hume is credited with pointing out the logical fallacy of imagining that one can derive normative propositions such as "What ought to be done?" from positive propositions such as "If A holds, then B follows." The fallacy is committed with depressing frequency by economists making policy recommendations based – they think – on "value-free" economic analysis.

20. This fiscal history is described in more detail in Evans (2002c).

21. The Pharmacare program in British Columbia has had some success in controlling prescription drug expenditures through its reference pricing system (Schneeweiss *et al.*, 2002; Marshall *et al.*, 2002). But it has not pursued this approach aggressively. A nation-wide system backed by both federal and provincial governments might significantly moderate the escalation of drug costs, but by the same motion would restrain the escalation of industry sales and profits.

22. The net effect depends upon the behaviour of the large majority of the population whose allocated spending accounts will exceed their actual outlays. Will they use the excess to pay for health-related commodities that they were previously paying for privately, or will they increase their overall

spending on such commodities – buying more and/or paying higher prices for services previously reimbursed by governments? In the former case, public spending will go up but total spending will not; in the latter case, total spending will go up as well. If, as seems likely, the increase in public spending exceeds the extra revenue from user charges on those who exceed their allocated accounts, then the requirement for tax finance will increase as well. Rather than shifting the burden of payment from taxpayers to users of care, the MSA scheme is likely to increase it for both.

23. See, for example, the review by Roos and Frohlich (2002) of a book edited by one of the leading advocates of MSAs.

24. An adjustment for the tax expenditure subsidy to private insurance, however, would lower Canada's private share by about three percentage points, bringing it closer to the middle of the pack.

25. The common interpretation of "begging the question" as referring to an observation or argument that strongly suggests a further question, is incorrect.

26. Individuals would be liable either for 20% of all expenses billed (physicians' fees) or estimated to have been incurred (hospitals) on their behalf, or for all such expenses up to an annual ceiling of $300.

27. There is still another reason: the proportion of costs that cannot be attributed to individuals. In what follows, we continue to use the CIHI estimate for 2001 of about $1500 per capita expenditure on physicians and hospitals. But as noted above, Forget *et al.* were only able to attribute about 62% of the CIHI estimate for Manitoba in their study years. If nearly 40% of costs cannot be attributed to individuals, the scope for revenue-raising through private financing is significantly reduced.

28. This group is too small to matter much with respect to the revenue-raising potential of a deductible, which is proportionate to numbers of people. But it matters a lot when contributions are linked to the level of expenditure.

29. That limit could be based on individual incomes, as for that matter could be the deductible level; it would mitigate somewhat the regressivity of this form of financing. But this creates another problem. The degree of inequality of income is such that if the limit were directly proportionate to income, most of those in the highest income groups would effectively be uninsured by the public system, creating an obvious pressure for a two-tier system of both insurance and provision. On the other hand, if the limit varies over a narrower range than income does, then the financing system remains regressive.

30. There are two major sources for this evidence. Several papers from the RAND Health Insurance Study in the 1980s referenced in Barer *et al.* (1998), but their conclusions were foreshadowed in the papers from the Montreal study of the early 1970s, referenced above (Enterline *et al.*, 1873a,b; McDonald *et al.*, 1974; Siemiatycki *et al.*, 1980).

31. The confusion is significant, because most of those who advocate user fees on the basis of economic theory have adopted precisely this normative view – that "efficient allocation" of health care resources means providing care to those, and only those, that are able and willing to pay for it. (While this value judgement is not widely shared, at least openly, it may have more adherents than are willing to admit it – or even clearly aware of it.) There remains continuing controversy in the economic literature over whether user fees do or do not serve to limit overall expenditures. It appears that they have little or no effect on hospital use, but do affect individuals' decisions in the anticipated

direction, discouraging use. The controversy arises over whether these effects on individuals can be added up to an aggregate effect. Insofar as needed care is discouraged, one might find harm to health and greater costs later on. Some evidence of harm has emerged for pharmaceutical user charges, but the net financial costs are not clear. More importantly (in this author's judgement) is the fact that utilization of both hospitals and physicians is largely determined by physicians' judgements as constrained by the availability of supply. What one patient does not use, another will.

32. The U.S. experience does show that a greater share of private financing is conducive to greater flexibility and change in the delivery system, but unfortunately not to improvement (Oberlander, 2002).

33. Granted, the economic outlook at mid-2002 looks distinctly worrying. But the news is bad for the public and the private sectors alike. A severe recession that strains public resources will not make health care any more affordable through private channels.

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